

# ABSTRACT OF SANITARY REPORTS.

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TREASURY DEPARTMENT, *U. S. Marine-Hospital Service*.—Published in accordance with act of Congress approved February 15, 1893.

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## UNITED STATES.

[Reports to the Supervising Surgeon-General M. H. S.]

### *Smallpox in Wisconsin.*

MILWAUKEE, November 19, 1894.

SIR: Since my last communication, November 5, the following concerning smallpox in this State has been reported to this office: Spring Prairie, Walworth County, 1 case, 1 death; Muskego, Waukesha County, 5 cases, 1 death; Beaver Dam, Dodge County, 1 case; South Milwaukee, Milwaukee County, 5 cases; Franklin, Milwaukee County, 1 death; Greenfield, Milwaukee County, 24 cases, 4 deaths; the most of these cases should have been reported before, health officer failing to do so. There are but few cases at present on hand; disease under control. Wauwatosa, Milwaukee County, 4 cases, 1 death; Milwaukee City, Milwaukee County, 51 cases, 16 deaths. Total present number of cases on hand in city of Milwaukee, 106; in hospital, 41; in homes, 65.

Very truly, yours,

U. O. B. WINGATE,  
*Secretary State Board of Health.*

### *Smallpox at Brainerd, Minn.*

ST. PAUL, MINN., November 15, 1894.

SIR: I have to report a case of variola at Brainerd, Minn. Origin, Chicago. Was promptly reported and isolated, and all exposed have been vaccinated. No other case in the State.

Yours, truly,

CHARLES N. HEWITT,  
*Secretary State Board of Health.*

### *Two additional cases of smallpox near Glymont, Md.*

POMONKEY, MD., November 16, 1894.

SIR: I have the honor to report, in accordance with my promise, that I visited the Mundell family on the 10th instant, and found 2 more of the family stricken with the smallpox, a girl 8 years and a boy

13 years, both confluent cases. The disease is very little mitigated or modified by a previous vaccination (too late, perhaps) by Dr. Stewart, of the Marine-Hospital Service. On the 10th I found the disease in the papular stage, and again on my visit yesterday, the 15th, I found well-developed cases of confluent disease in the pustular stage. The boy I consider in a very critical condition. There are 2 more members of the family, and I shall wait and see whether they have the disease before I disinfect the house and premises. The disease is confined to the Mundell family. No intercourse with the surrounding neighborhood. Another physician, Dr. Mitchell, and myself have vaccinated as many as possible.

Respectfully, yours,

RUEL K. COMPTON.

*Smallpox at Pomfret, Vt.*

RICHFORD, VT., November 14, 1894.

SIR: It becomes my duty to inform you that the second case of smallpox exists at Pomfret, in the county of Windsor, in the State of Vermont. The person sick is an adult female. Origin of disease is exposure to first case. Restrictive measures, isolation, quarantine, and vaccination, and the danger of disease spreading is very little.

Very respectfully,

J. H. HAMILTON,

*Secretary State Board of Health.*

*Smallpox near Honey Creek, Wis.*

MILWAUKEE, November 15, 1894.

DEAR DOCTOR: Replying to yours of the 12th instant, relative to the smallpox near "Honey Creek, Racine County," I have to say that the cases at Honey Creek are included in those of Spring Prairie, Walworth County, in my last report, Honey Creek being a small village  $2\frac{1}{2}$  miles west of Spring Prairie on the county line between Racine and Walworth counties. Since my last report, on November 5, 1 case and 1 death have been reported by the health officer in that locality. I am assured that all necessary precautions are being taken and that the disease is probably under control.

Very truly, yours,

U. O. B. WINGATE,

*Secretary State Board of Health.*

*No new cases of smallpox in the District of Columbia.*

WASHINGTON, D. C., November 21, 1894.

SIR: I have the honor to report that during the past week there have been no new cases of smallpox in the District. The case of Mrs. Pemberton, reported last week, resulted in death. The 3 cases reported in the family of Mr. Williams are progressing favorably.

Very respectfully,

H. D. GEDDINGS,

*Passed Assistant Surgeon, M. H. S.*

*Immunization of horse for serum therapy of diphtheria—Additional report.*

WASHINGTON, D. C., November 21, 1894.

SIR: I have the honor to report that the immunization of the horse for the preparation of the antitoxine of diphtheria has been continued since my last report by the injection of 2 c. c. of the toxine. There was little local or constitutional reaction.

Very respectfully,

H. D. GEDDINGS,  
Passed Assistant Surgeon, M. H. S.

*Smallpox in the United States as reported to the Supervising Surgeon-General Marine-Hospital Service, October 10 to November 21, 1894.*

Places.	Date.	Cases.	Deaths.	Remarks.
District of Columbia:				
Washington.....	Oct. 15-Nov. 22....	16	5	
Indiana:				
Walkerton.....	Nov. 8 .....	3		
Maryland:				
Charles County, near Glymont.....	Oct. 27-Nov. 22....	3		
Michigan:				
Cheboygan.....	Oct. 19.....	2		
Detroit.....	Oct. 13-Nov. 10....	27	7	
Manchester.....	Oct. 20.....			Smallpox reported.
Norvill.....	Oct. 13-Oct. 20.....			Smallpox reported.
Rives township.....	Oct. 13-Oct. 20.....	1		
Royal Oak township.....	Nov. 1.....	1		
St. Johns.....	Oct. 28.....	3	1	
Minnesota:				
Brainerd.....	Nov. 15.....	1		
New Jersey:				
Newark.....	Oct. 6-Oct. 20.....	6		
New York:				
Brooklyn.....	Oct. 6-Nov. 17....	4	1	
New York.....	Oct. 27-Nov. 17....		4	
Ohio:				
Deerfield.....	Nov. 5.....	1		
Pennsylvania:				
Philadelphia .....	Oct. 13-Nov. 10....	11	1	
Vermont:				
Pomfret.....	Oct. 20-Nov. 14....	2		
Wisconsin:				
Beaver Dam.....	Nov. 5-Nov. 19....	1		
Franklin.....	Oct. 22-Nov. 19....	17	3	
Ellsworth.....	Oct. 8-Oct. 22.....	1	1	
Greenfield.....	Nov. 19.....	24		
Liberty.....	Oct. 8-Oct. 22.....	1		
Milwaukee.....	Oct. 6-Nov. 3.....	275	98	
Milwaukee township .....	Oct. 8-Nov. 19....	7	1	
Muskego.....	Oct. 22-Nov. 19....	7	3	
Spring Prairie.....	Oct. 22-Nov. 19....	4	1	
Two Rivers.....	Oct. 22-Nov. 5.....	3	1	
Wauwatosa .....	Oct. 8-Nov. 19....	18	3	
Wonewoc.....	Oct. 8-Oct. 22.....	6		

*Report of immigration at New York for the week ended November 17, 1894.*

OFFICE OF U. S. COMMISSIONER OF IMMIGRATION,  
Port of New York, November 19, 1894.

Number of alien immigrants who arrived at this port during the week ended November 17, 1894;  
also names of vessels and ports from which they arrived.

Date.	Vessel.	Where from.	No. of immigrants from Russia.	No. of immigrants.
1894.				
Nov. 11	Steamship Campania.....	Liverpool and Queenstown ..	1	393
11	Steamship Adriatic.....	do.....	3	196
11	Steamship Prussia.....	Hamburg.....	4	63
12	Steamship Augusta Victoria...	Genoa.....		80
12	Steamship Massilia.....	Marseilles and Naples.....		23
12	Steamship La Champagne.....	Havre.....		138
12	Steamship Veendam.....	Rotterdam.....	20	189
13	Steamship Vega.....	Spain and the Azores.....		51
13	Steamship Rugia.....	Naples.....		131
13	Steamship Suevia.....	Hamburg.....	41	182
14	Steamship Friesland.....	Antwerp.....		255
15	Steamship Teutonic.....	Liverpool and Queenstown...	6	287
15	Steamship Chester.....	Southampton.....	4	174
15	Steamship Circassia.....	Glasgow and Moville.....	6	85
16	Steamship Oevenum.....	Lisbon and the Azores.....		75
16	Steamship Aller.....	Bremen.....	15	147
17	Steamship Dresden.....	do.....	36	120
17	Steamship Werkendam.....	Rotterdam.....	51	110
17	Steamship Elysia.....	Denia, Spain.....		21
	Total.....		187	2,720

DR. J. H. SENNER,  
Commissioner of Immigration.

*Report of immigration at Philadelphia for the week ended November 17, 1894.*

OFFICE OF U. S. COMMISSIONER OF IMMIGRATION,  
Port of Philadelphia, November 17, 1894.

Number of alien immigrants who arrived at this port during the week ended November 17, 1894; also name of vessel and port from which it arrived.

Date.	Vessel.	Where from.	No. of immigrants from Russia.	No of immigrants.
1894.				
Nov. 11	Steamship Southwark.....	Liverpool.....	35	377

JNO. J. S. RODGERS,  
Commissioner of Immigration.

## VESSELS REMAINING, ARRIVING AT, AND DEPARTING FROM UNITED STATES QUARANTINE STATIONS.

## BRUNSWICK QUARANTINE.

Week ended November 3, 1894.

Name of vessel.	Date of arrival.	Where from.	Destination.	Treatment of vessel and cargo.	Date of departure.
Am. bark H. I. Routh *.....	Oct. 19	Santos.....	Brunswick...	Disinfected.....	Nov. 1
Span. brig "F. E.".....	Oct. 30	Manzanillo.....	do.....	do.....	Nov. 1
Span. brig Joven Ana.....	Nov. 1	Havana.....	do.....	Disinfected and held for observation.....	

\* Previously reported.



VESSELS REMAINING, ARRIVING AT, AND DEPARTING FROM UNITED STATES QUARANTINE STATIONS—*Continued.**Week ended November 10, 1894.*

Name of vessel.	Date of arrival.	Where from.	Destination.	Treatment of vessel and cargo.	Date of dep'ture.
Spanish brig Joven Ana*.....	Nov. 1	Havana .....	Brunswick..	Disinfected.....	Nov. 5
Spanish brig Rosario.....	Nov. 9	.....do.....	.....do.....	Held for disinfection.	.....
Spanish brig Adriana.....	Nov. 10	Porto Rico...	.....do.....	.....do.....	.....

\* Previously reported.

Two vessels inspected and passed.

*Week ended November 17, 1894.*

Name of vessel.	Date of arrival.	Where from.	Destination.	Treatment of vessel and cargo.	Date of dep'ture.
Spanish brig Rosario*.....	Nov. 9	Havana .....	Brunswick..	Disinfected.....	Nov. 12
Spanish brig Adriana*.....	Nov. 10	Porto Rico...	.....do.....	.....do.....	Nov. 17

\* Previously reported.

Three vessels inspected and passed.

## DELAWARE BREAKWATER QUARANTINE.

*Week ended November 17, 1894.*

One vessel inspected and passed.

## GULF QUARANTINE.

*Week ended November 14, 1894.*

Two vessels inspected and passed.

## KEY WEST QUARANTINE.

*Week ended November 13, 1894.*

Name of vessel.	Date of arrival.	Where from.	Destination.	Treatment of vessel and cargo.	Date of dep'ture.
Am. schr. Anna E. J. Morse....	Nov. 2	Havana .....	Punta Gorda.	Disinfected.....	Nov. 10

## PORT TOWNSEND QUARANTINE.

*Week ended November 10, 1894.*

One vessel inspected and passed.

## REEDY ISLAND QUARANTINE.

*Week ended November 18, 1894.*

twenty vessels inspected and passed.

## SAN DIEGO QUARANTINE.

*Week ended November 14, 1894.*

Two vessels inspected and passed.

VESSELS REMAINING, ARRIVING AT, AND DEPARTING FROM UNITED STATES QUARANTINE STATIONS—*Continued.*

## SOUTH ATLANTIC QUARANTINE.

*Week ended November 10, 1894.*

Name of vessel.	Date of arrival.	Where from.	Destina- tion.	Treatment of vessel and cargo.	Date of dep'ture.
Portuguese bark Allianca *.....	Oct. 16	Pernam- buco.	Savannah...	Disinfected.....	Nov. 5
Portuguese bark Atlantico *....	Oct. 18	Rio .....	.....do.....	.....do .....	Nov. 8
Italian bark Michael B *.....	Oct. 18	.....do .....	.....do.....	Disinfected and held for observa- tion.	.....
British bark Quiteria * .....	Oct. 29	.....do .....	.....do.....	Held for disinfection.	.....

\* Previously reported.

Two vessels inspected and passed.

*Reports of States and yearly and monthly report of cities.*

**CALIFORNIA.**—Month of October, 1894. Reports to the State board of health from 69 cities, towns, and villages, having an aggregate population of 742,873, show a mortality of 1,022, including phthisis pulmonalis, 166; enteric fever, 27; diphtheria, 19; croup, 5; and whooping cough, 6.

**San Francisco.**—Month of October, 1894. Estimated population, 330,000. Total deaths, 518, including phthisis pulmonalis, 90; enteric fever, 9; scarlet fever, 1; diphtheria, 1; croup, 4; and whooping cough, 3.

**CONNECTICUT.**—Month of October, 1894. Reports to the State board of health from 166 towns, having an aggregate population of 811,092, show a total of 994 deaths, including phthisis pulmonalis, 113; enteric fever, 32; diphtheria and croup, 39; scarlet fever, 2; and whooping cough, 6.

**FLORIDA.**—Month of September, 1894. Reports to the State board of health from 45 counties, including the cities of Key West, Jacksonville, and Pensacola, having an aggregate population of 391,422, show a total of 319 deaths, including phthisis pulmonalis, 24; enteric fever, 13; croup, 1; and whooping cough, 3.

**Tampa.**—Month of October, 1894. Estimated population, 16,000. Total deaths, 21, including phthisis pulmonalis, 6; and diphtheria, 2.

**INDIANA—Evansville.**—Month of October, 1894. Estimated population, 60,000. Total deaths, 72, including phthisis pulmonalis, 10; enteric fever, 7; scarlet fever, 1; diphtheria, 2; and whooping cough, 2.

**IOWA—Davenport.**—Month of October, 1894. Estimated population, 35,500. Total deaths, 40, including phthisis pulmonalis, 3; enteric fever, 1; diphtheria, 1; and croup, 1.

**MARYLAND—Baltimore.**—Month of October, 1894. Estimated population, white, 384,394; colored, 71,033; total, 455,427. Deaths, white,

592; colored, 154; total, 746, including phthisis pulmonalis, 93; enteric fever, 31; scarlet fever, 11; diphtheria, 19; measles, 2; croup, 5; and whooping cough, 3.

**MASSACHUSETTS—Brockton.**—Month of October, 1894. Estimated population, 30,000. Total deaths, 27, including phthisis pulmonalis, 1; diphtheria, 1; and whooping cough, 1.

**Fitchburg.**—Month of October, 1894. Estimated population, 29,383. Total deaths, 31, including phthisis pulmonalis, 4; and whooping cough, 1.

**Lowell.**—Month of October, 1894. Estimated population, 90,613. Total deaths, 147, including phthisis pulmonalis, 17; scarlet fever, 1; diphtheria, 2; croup, 5; and whooping cough, 1.

**MICHIGAN.**—Week ended November 10, 1894. Reports to the State board of health, Lansing, from 60 observers indicate that inflammation of kidney increased, and that intermittent fever decreased in area of prevalence. Phthisis pulmonalis was reported present during the week at 231 places, scarlet fever at 50, enteric fever at 71, diphtheria at 37, measles at 5, and smallpox at 5 places—Cheboggan, Detroit, Manchester township, Royal Oak township, and St. Johns.

**Grand Rapids.**—Month of September, 1894. Estimated population, 80,000. Total deaths, 113, including phthisis pulmonalis, 8; enteric fever, 6; and diphtheria, 1.

**MINNESOTA—Minneapolis.**—Month of October, 1894. Population, 164,738. Total deaths, 167, including phthisis pulmonalis, 19; enteric fever, 18; scarlet fever, 2; diphtheria, 7; and whooping cough, 2.

**St. Paul.**—Month of October, 1894. Estimated population, 155,000. Total deaths, 108, including phthisis pulmonalis, 7; enteric fever, 5; scarlet fever, 1; diphtheria, 6; and croup, 2.

**MISSOURI—Kansas City.**—Five months ended August 31, 1894. Population, 132,716. Total deaths, 719, including phthisis pulmonalis, 37; enteric fever, 10; scarlet fever, 1; diphtheria, 7; measles, 2; and croup, 5.

Month of October, 1894. Total deaths, 128, including phthisis pulmonalis, 11; enteric fever, 1; diphtheria, 5; croup, 4; and whooping cough, 2.

**St. Louis.**—Month of October, 1894. Estimated population, 540,000. Total deaths, 700, including phthisis pulmonalis, 66; enteric fever, 20; scarlet fever, 2; diphtheria, 23; croup, 17; and whooping cough, 2.

**NEW HAMPSHIRE—Concord.**—Month of October, 1894. Estimated population, 19,000. Total deaths, 35, including phthisis pulmonalis, 5; enteric fever, 2; and croup, 1.

**NEW YORK—Buffalo.**—Month of October, 1894. Estimated population, 315,000. Total deaths, 440, including phthisis pulmonalis, 42; enteric fever, 22; scarlet fever, 2; diphtheria, 27; and croup, 15.

**OHIO—Columbus.**—Month of October, 1894. Estimated population, 100,000. Total deaths, 99, including phthisis pulmonalis, 15; enteric fever, 7; scarlet fever, 1; and diphtheria, 3.

PENNSYLVANIA.—*Plymouth*.—Two weeks ended November 10, 1894. Population, 9,344. Total deaths, 7. No deaths from contagious diseases.

TENNESSEE—*Memphis*.—Month of October, 1894. Population, white, 32,376; colored, 25,575; total, 57,951. Deaths, white, 50; colored, 50; total, 100, including phthisis pulmonalis, 10; enteric fever, 6; scarlet fever, 2; and diphtheria, 2.

*Nashville*.—Month of October, 1894. Estimated population, white, 54,595; colored, 33,159; total, 87,754. Deaths, white, 64; colored, 53; total, 117, including phthisis pulmonalis, 18; enteric fever, 3; scarlet fever, 3; diphtheria, 3; croup, 2; and whooping cough, 1.

VERMONT—*Burlington*.—Three months ended October, 1894. Population, 14,590. Total deaths, 91, including phthisis pulmonalis, 7; and scarlet fever, 4.

## PUBLICATIONS RECEIVED.

Annual Statement of Mortality in the City of Louisville, Ky., for year ended August 31, 1894.

Demographia Sanitaria de Pernambuco pelo Dr. Rodolpho Galvao, inspector de Hygiene do Estado de Pernambuco.

Report of the Health Officer of the District of Columbia, 1893.

Report of the State Board of Health of Massachusetts, 1893.

Thirteenth Biennial Report of the California State Board of Health June 30, 1892–June 30, 1894.

## MORTALITY TABLE, CITIES OF THE UNITED STATES.

Cities.	Week ended.	Population, U. S. Census of 1890.	Total deaths from all causes.	Deaths from—									
				Phthisis pulmonalis.	Yellow fever.	Smallpox.	Varioloid.	Cholera.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.
Allegheny, Pa.....	Nov. 17....	105,287	31	2	.....	.....	.....	.....	.....	1	.....	1	.....
Altoona, Pa.....	Nov. 10....	30,337	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Amesbury, Mass.....	Nov. 17....	9,798	6	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ashtabula, Ohio.....	Nov. 17....	8,338	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Augusta, Ga.....	Nov. 16....	33,300	19	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
Baltimore, Md.....	Nov. 17....	434,439	168	25	.....	.....	.....	.....	.....	5	1	9	.....
Bath, Me.....	Nov. 10....	8,723	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Belleville, Ill.....	Nov. 10....	15,361	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bennington, Vt.....	Nov. 17....	6,391	2	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Beverly, Mass.....	Nov. 10....	10,821	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Beverly, Mass.....	Nov. 17....	10,821	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Binghamton, N. Y.....	Nov. 17....	35,005	12	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Boston, Mass.....	Nov. 17....	448,477	202	28	.....	.....	.....	.....	.....	5	3	25	.....
Bristol, Conn.....	Nov. 3....	7,382	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bristol, Conn.....	Nov. 10....	7,382	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Bristol, R. I.....	Nov. 17....	7,382	0	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brockton, Mass.....	Nov. 10....	27,294	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
Brookline, Mass.....	Nov. 10....	12,103	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Brooklyn, N. Y.....	Nov. 17....	806,343	330	44	.....	.....	.....	.....	.....	5	.....	30	.....
Butler, Pa.....	Nov. 17....	8,734	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Butte, Mont.....	Nov. 10....	10,723	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
Cambridge, Mass.....	Nov. 17....	70,028	15	5	.....	.....	.....	.....	.....	1	1	.....	.....
Carlisle, Pa.....	Nov. 17....	7,620	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Charleston, S. C.....	Nov. 10....	*54,955	†31	2	.....	.....	.....	.....	.....	1	.....	1	.....

\* Estimated population, white 28,870, colored 36,295; total, 65,165.

† White 11, colored 20.

## MORTALITY TABLE, CITIES OF THE UNITED STATES—Continued.

Cities.	Week ended.	Population, U. S. Census of 1890.	Total deaths from all causes.	Deaths from—									
				Pneumonia.	Yellow fever.	Smallpox.	Varicoid.	Cholera.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.
													Whooping cough.
Cincinnati, Ohio.....	Nov. 16....	296,908	93	11						4		6	
Cleveland, Ohio.....	Nov. 17....	251,353	95	10						3	15	3	
Columbus, Ohio.....	Nov. 17....	88,150	40	3							1	3	
Crawfordsville, Ind.....	Nov. 10....	6,089	2										
Crawfordsville, Ind.....	Nov. 17....	6,089	2										
Cumberland, Md.....	Nov. 17....	12,729	3										
Dayton, Ohio.....	Nov. 15....	61,220	30	2									
Detroit, Mich.....	Nov. 10....	206,876	63								1		
Detroit, Mich.....	Nov. 17....	206,876	68			2						12	
Dunkirk, N. Y.....	Nov. 10....	9,416	2										
Elgin, Ill.....	Nov. 17....	17,823	3										
Fall River, Mass.....	Nov. 17....	74,398	25	1						2		1	1
Fitchburg, Mass.....	Nov. 17....	22,037	4										
Fort Worth, Tex.....	Nov. 10....	23,076	6	1									
Grand Rapids, Mich.....	Nov. 17....	60,278	16	1									
Haverhill, Mass.....	Nov. 17....	27,412	10	1						1		2	
Hoboken, N. J.....	Nov. 10....	43,648	29	5									
Ironton, Ohio.....	Nov. 10....	10,939	6										
Jamestown, N. Y.....	Nov. 10....	16,038	2	1									
Jamestown, N. Y.....	Nov. 17....	16,038	10							1			
Johnstown, Pa.....	Nov. 15....	21,805		1									
Johnstown, Pa.....	Nov. 17....	21,805											
Kalamazoo, Mich.....	Nov. 17....	17,853	7										
Knoxville, Tenn.....	Nov. 10....	22,535	15	4							1		1
Lowell, Mass.....	Nov. 17....	77,696	22	3									
Lynchburg, Va.....	Nov. 17....	19,709	9	2						1		1	
McKeesport, Pa.....	Nov. 10....	20,741	8							1			
Macon, Ga.....	Nov. 17....	22,746	10	1									
Massillon, Ohio.....	Nov. 10....	10,092	4	1									
Massillon, Ohio.....	Nov. 17....	10,092	5	1								1	
Medford, Mass.....	Nov. 10....	11,079	9							2			
Medford, Mass.....	Nov. 17....	11,079	5							1			
Memphis, Tenn.....	Nov. 17....	64,495	28	1						1		1	
Milford, Mass.....	Nov. 19....	8,780	4	1									
Milwaukee, Wis.....	Nov. 10....	204,468	68	4		9				3			
Milwaukee, Wis.....	Nov. 17....	204,468	79	9		7				2		2	1
Minneapolis, Minn.....	Nov. 17....	164,738	31	2						1		1	
Mobile, Ala.....	Nov. 17....	31,076	16										
Mount Vernon, N. Y.....	Nov. 10....	10,830	4	1									
Nashville, Tenn.....	Nov. 17....	76,164	22	4									
Naugatuck, Conn.....	Nov. 17....	6,218	1										
New Brunswick, N. J.....	Nov. 17....	18,603	7	1									
New Haven, Conn.....	Nov. 14....	81,298	19	3									
New Orleans, La.....	Nov. 10....	242,039	141	16						1	1	6	1
Newport, R. I.....	Nov. 17....	19,457	7	2									
Newton, Mass.....	Nov. 17....	24,379	7										
New York, N. Y.....	Nov. 17....	1,515,301	660	86		2				10	3	27	2
North Adams, Mass.....	Nov. 17....	16,074	11							1			
Northampton, Mass.....	Nov. 10....	14,990	3										
Omaha, Nebr.....	Nov. 10....	140,452	19	2						3		2	
Omaha, Nebr.....	Nov. 17....	140,452	17	1						1	1	1	
Ottumwa, Iowa.....	Nov. 10....	14,001	2										
Passaic, N. J.....	Nov. 17....	13,028	4										
Pensacola, Fla.....	Nov. 10....	11,750	3										1
Philadelphia, Pa.....	Nov. 10....	1,046,964	392	55						7	4	28	1
Pittsfield, Mass.....	Nov. 17....	17,281	4										
Portage City, Wis.....	Nov. 10....	5,143	2										
Portland, Me.....	Nov. 7....	36,425	17	3						1	1	2	
Poughkeepsie, N. Y.....	Nov. 11....	22,206	8	3									
Poughkeepsie, N. Y.....	Nov. 18....	22,206	6	1									
Pueblo, Colo.....	Nov. 10....	24,558	10	1									
Providence, R. I.....	Nov. 17....	132,146	48							2	2	3	
Racine, Wis.....	Nov. 17....	21,014	6	1									
Reading, Pa.....	Nov. 12....	58,661	30	2								4	
Reading, Pa.....	Nov. 19....	58,661	29	1								5	
Richmond, Va.....	Nov. 17....	81,388	31	4						1			
Rochester, N. Y.....	Nov. 10....	133,896	33	8						1			1
Salt Lake City, Utah.....	Nov. 3....	44,843	13	2						3			
San Diego, Cal.....	Nov. 10....	16,159	3										
San Francisco, Cal.....	Nov. 10....	298,997	115										
Sault Ste. Marie, Mich.....	Nov. 10....	5,760	6								1		
Scranton, Pa.....	Nov. 10....	75,215	24	4								1	
Scranton, Pa.....	Nov. 17....	75,215	29	1						3	2	2	



## MORTALITY TABLE, CITIES OF THE UNITED STATES—Continued.

Cities.	Week ended.	Population, U. S. Census of 1890.	Total deaths from all causes.	Deaths from—								
				Phthisis pulmonalis.	Yellow fever.	Smallpox.	Varicoid.	Cholera.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.
Seattle, Wash.....	Nov. 3....	42,837	7	3								
Seattle, Wash.....	Nov. 10....	42,837	12	1								
Seneca Falls, N. Y.....	Nov. 10....	6,116	1									
Shreveport, La.....	Nov. 10....	11,979	6									
Sioux Falls, S. Dak.....	Nov. 10....	10,177	0									
Somerville, Mass.....	Nov. 17....	40,152	8	1								
Springfield, Mass.....	Nov. 17....	44,179	16	4					3			
Sterling, Ill.....	Nov. 10....	5,824	1									
Stockton, Cal.....	Nov. 12....	14,424	4	1								
Superior, Wis.....	Nov. 10....	11,983	7							2	3	
Taunton, Mass.....	Nov. 17....	25,448	14						1		8	
Titusville, Pa.....	Nov. 10....	8,073	2									1
Urbana, Ohio.....	Nov. 17....	6,510	2									
Virginia City, Nev.....	Nov. 10....	8,511	1									
Wakefield, Mass.....	Nov. 3....	6,982	1									
Wakefield, Mass.....	Nov. 10....	6,982	2									
Wallingford, Conn.....	Nov. 10....	6,584	2									
West Bay City, Mich....	Nov. 17....	12,981	3									
West Chester, Pa.....	Nov. 10....	8,028	4									
Woburn, Mass.....	Nov. 10....	13,499	10						2			
Worcester, Mass.....	Nov. 8....	84,655	31	1							2	
Yonkers, N. Y.....	Nov. 16....	32,033	20							1	1	6
Youngstown, Ohio.....	Nov. 16....	33,220	16	1								

Table of temperature and rainfall, week ended November 12, 1894.

[Received from Department of Agriculture, Weather Bureau.]

Locality.	Temperature in degrees Fahrenheit.			Rainfall in inches and hundredths.		
	Normal.	*Excess.	*Deficiency.	Normal.	Excess.	Deficiency.
<b>Atlantic Coast:</b>						
Eastport, Me.....	40		6	1.08		.27
Portland, Me.....	38		7	.98		.26
Northfield, Vt.....	36		10	.75		.12
Boston, Mass.....	45		12	1.12		.41
Block Island, R. I.....	48		9	.91	1.29	
New London, Conn.....	46		11	1.03	.58	
Albany, N. Y.....	43		10	.75	.49	
New York, N. Y.....	48		10	.91		.06
Philadelphia, Pa.....	49		11	.77		.32
Atlantic City, N. J.....	48		8	.79		.46
Baltimore, Md.....	50		9	.70		.01
Washington, D. C.....	49		7	.70		.38
Lynchburg, Va.....	52		9	.70		.55
Norfolk, Va.....	54		8	.72		.72
Charlotte, N. C.....	53		11	.70		.70
Wilmington, N. C.....	58		9	.56		.56
Charleston, S. C.....	61		9	.77		.77
Augusta, Ga.....	57		12	.77		.77
Savannah, Ga.....	61		10	.49		.49
Jacksonville, Fla.....	65		10	.61		.61
Titusville, Fla.....	69		10	.77		.77
Jupiter, Fla.....	73		9	.85		.61
Key West, Fla.....	75		6	.66		.16
<b>Gulf States:</b>						
Atlanta, Ga.....	56		15	.95		.95
Mobile, Ala.....	61		11	.92		.92
Montgomery, Ala.....	59		12	.79		.79
Vicksburg, Miss.....	59		10	1.14		1.14
New Orleans, La.....	63		8	1.05		1.05
Shreveport, La.....	59		7	1.13		1.13
Fort Smith, Ark.....	54		7	.91		.91
Little Rock, Ark.....	55		8	1.24		1.24
Palestine, Tex.....	59		5	1.09		1.09
Galveston, Tex.....	65		4	1.11		1.11
San Antonio, Tex.†.....	60		1	.49		.49
Corpus Christi, Tex.....	65		3	.77		.77
<b>Ohio Valley and Tennessee:</b>						
Memphis, Tenn.....	55		10	1.18		1.18
Nashville, Tenn.....	52		13	.93		.93
Knoxville, Tenn.....	51		11	.98		.98
Louisville, Ky.....	51		13	.97		.96
Indianapolis, Ind.....	45		11	.90		.49
Cincinnati, Ohio.....	48		12	.78		.39
Columbus, Ohio.....	45		11	.76		.03
Parkersburg, W. Va.....	46		12	.70		.02
Pittsburg, Pa.....	47		11	.63		.10
<b>Lake Region:</b>						
Oswego, N. Y.....	41		9	.77		.33
Buffalo, N. Y.....	42		10	.84		.42
Erie, Pa.....	44		8	1.05		.67
Cleveland, Ohio.....	44		10	.70		.08
Toledo, Ohio.....	44		12	.69		.24
Detroit, Mich.....	43		12	.57	.11	
Port Huron, Mich.....	40		9	.63		.26
Alpena.....	36		8	.70		.11
Marquette, Mich.....	36		8	.59	.70	
Grand Haven, Mich.....	41		9	.70		.07
Milwaukee, Wis.....	42		12	.49	.26	
Chicago, Ill.....	44		14	.63		.03
Duluth, Minn.....	34		7	.42	.33	
<b>Upper Mississippi Valley:</b>						
St. Paul, Minn.....	35		8	.28		.07
La Crosse, Wis.....	39		11	.42	.08	
Davenport, Iowa.....	42		11	.50		.36
Des Moines, Iowa.....	41		8	.53		.46
Keokuk, Iowa.....	44		10	.49		.31
Springfield, Ill.....	46		12	.70		.46
Cairo, Ill.....	50		10	1.02		1.02
St. Louis, Mo.....	49		11	.70		.67
<b>Missouri Valley:</b>						
Springfield, Mo.....	49		8	.91		.91
Kansas City, Mo.....	46		6	.62		.62

\*The figures in these columns represent the average daily departure.

†Report missing.

Table of temperature and rainfall, week ended November 12, 1894—Continued.

Locality.	Temperature in degrees Fahrenheit.			Rainfall in inches and hundredths.		
	Normal.	*Excess.	*Deficiency.	Normal.	Excess.	Deficiency.
<b>Missouri Valley—Continued.</b>						
Wichita, Kans.	46	1		23		23
Concordia, Kans.	44		3	35		35
Omaha, Nebr.	42		6	28		18
Valentine, Nebr.	41		2	10		08
Huron, S. Dak.	34		3	16		03
Pierre, S. Dak.	37		1	14	12	
Moorehead, Minn.	29		3	24	20	
St. Vincent, Minn.	26		2	17	07	
Bismarck, N. Dak.	32		2	14	08	
Williston, N. Dak.	31	1		07	37	
<b>Rocky Mountain Slope:</b>						
Havre, Mont.	33	7		14		03
Helena, Mont.	35	14		12		11
Spokane, Wash.	39	8		28	21	
Wallawalla, Wash.	45	4		35		25
Winnemucca, Nev.	39	8		14		14
Salt Lake City, Utah	42	8		35		35
Cheyenne, Wyo.	37	9		07		06
North Platte, Nebr.	40	1		07		07
Denver, Colo.	42	8		17		17
Pueblo, Colo.	43	4		05		05
Dodge City, Kans.	45	2		14		14
Abilene, Tex.	56		2	63		63
Santa Fe, N. Mex.	40	8		21		21
El Paso, Tex.	54	1		14		14
Tucson, Ariz.	59	7		08		08
<b>Pacific Coast:</b>						
Port Angeles, Wash.	43	3		77	98	
Portland, Oreg.	48	5		133		132
Roseburg, Oreg.	48	5		77		77
Red Bluff, Cal.	55	11		65		65
Sacramento, Cal.	55	9		33		33
San Francisco, Cal.	57	7		33		53
Fresno, Cal.	57	6		28		28
Los Angeles, Cal.	61		1	21		21
San Diego, Cal.†						
Yuma, Ariz.	64	10		07		07

\* The figures in these columns represent the average daily departure.

† Report missing.

## FOREIGN.

[Reports received from the U. S. consuls through the Department of State and from other sources.]

*Cholera and yellow fever as reported to the Supervising Surgeon-General M. H. S., May 15 to November 22, 1894.*

## CHOLERA.

Places.	Date.	Cases.	Deaths.	Remarks.
Arabia: Mecca.....	June 11.....			Cholera reported.
Austria-Hungary: Bukowina.....	June 4-Oct. 21.....	94 820	43 431	Total to May 29 in all Galicia.
Galicia— Bahnia district.....	July 24-July 30.....	6	3	
Biala district.....	Aug. 27-Sept. 2.....	3	1	
Bobrka district.....	Sept. 3-Oct. 21.....	140	90	
Bochnia district.....	July 31-Sept. 23.....	18	9	
Bohorodzann district.....	Aug. 13-Oct. 21.....	418	242	
Borszczow district.....	May 30-Oct. 21.....	583	287	Borszczow, Husiatyn, Nisko, and Tarnoborzeg, June 12-June 19, 31 cases 15 deaths.
Brody district.....	Oct. 8-Oct. 14.....	2		
Brzeczann.....	Oct. 15-Oct. 21.....	27	16	
Brzesko district.....	Aug. 13-Sept. 2.....	9	4	
Buczacz district.....	July 24-Oct. 21.....	1706	708	
Bouhaje.....	Aug. 7-Aug. 12.....	3	1	
Cracow district.....	July 10-Oct. 21.....	416	246	
Chrzanow district.....	Aug. 27-Oct. 7.....	58	20	
Czorkow district.....	July 17-Oct. 21.....	318	154	
Dabrowa district.....	July 31-Sept. 2.....	19	10	
Dorlice district.....	Oct. 1-Oct. 21.....	17	10	
Ernbow district.....	Aug. 27-Sept. 2.....	4	2	
Horodenka district.....	July 10-Oct. 14.....	1025	554	
Husiatyn district.....	June 19-Oct. 21.....	448	183	
Jaworow.....	Oct. 8-Oct. 21.....	4	2	
Kalusz district.....	Aug. 13-Oct. 21.....	81	44	
Kamiouka district.....	Sept. 24-Oct. 21.....	205	111	
Kolbuszow district.....	July 10-Sept. 16.....	10	8	
Kolomea district.....	July 17-Oct. 21.....	319	177	
Kosow district.....	Aug. 13-Oct. 21.....	186	107	
Lemberg district.....	Sept. 3-Oct. 21.....	97	73	
Malhrisch Ostrau.....	Sept. 10-Sept. 16.....	1		
Melee district.....	July 31-Sept. 9.....	5	2	
Mosciska district.....	Sept. 10-Sept. 16.....	1		
Muslenice district.....	Sept. 10-Sept. 16.....	2	2	
	Oct. 15-Oct. 21.....	1	1	
Nadworna district.....	Aug. 13-Oct. 21.....	40	24	
Nisko district.....	July 17-Sept. 2.....	33	22	
Noun Targ-Neumarkt.....	Oct. 1-Oct. 21.....	11	3	
Oldenburg district.....	July 20.....			3 deaths reported.
Podhakce district.....	Aug. 13-Oct. 21.....	319	167	
Przemyslany district.....	Sept. 10-Sept. 30.....	26	14	
	Oct. 8-Oct. 21.....	6	3	
Pressburg district.....	Sept. 13.....			Cholera reported.
Rohatyn district.....	Sept. 3-Oct. 21.....	402	223	
Saybusch district.....	July 24-Aug. 19.....	35	12	
	Oct. 8-Oct. 14.....	3	3	
Skalat.....	July 24-Oct. 21.....	98	68	
Sniatyn district.....	Aug. 7-Oct. 21.....	95	59	
Stanislaw district.....	July 17-Oct. 21.....	456	248	
Tarnosel.....	July 24-Aug. 6.....	3		
Tarno district.....	July 31-Sept. 30.....	99	62	
Tarnobrz district.....	July 31-Sept. 16.....	112	67	
Tarnopol district.....	Aug. 20-Sept. 30.....	2	1	
Tumacz district.....	July 31-Oct. 21.....	1035	529	
Trembowla district.....	Sept. 17-Oct. 21.....	42	24	
Turka district.....	Sept. 10-Sept. 16.....	1		
Wieliczka district.....	July 24-Sept. 23.....	118	68	
Wadowice district.....	Aug. 7-Sept. 23.....	22	10	
Zaleszczny.....	June 5-Oct. 21.....	993	593	
Zloczkow district.....	Sept. 17-Oct. 21.....	189	105	
Zydaczow district.....	Sept. 17-Oct. 21.....	22	11	
Silesia.....	Aug. 20-Sept. 16.....	7	3	

*Cholera and yellow fever, etc.—Continued.*

## CHOLERA—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
<b>Belgium:</b>				
Angleur.....	July 17-Aug. 3...	11	6	
Antwerp province.....	Sept. 16-Oct. 6...	5	—	
Brabant province.....	Sept. 30-Oct. 6...	2	—	
Calloo.....	Sept. 8.....	1	—	
Charleroi.....	Sept. 8.....	2	—	Cholera reported.
Chatelmean.....	Aug. 19-Aug. 25...	1	—	Cholera reported.
Cheratte.....	July 18-Aug. 8...	1	1	
East Flanders province.....	Sept. 16-Oct. 6...	2	—	
Ghenée.....	July 29.....	1	1	
Herstel.....	July 18-Aug. 3...	—	7	
Hougaerde.....	Sept. 9-Sept. 15...	1	—	
Jeneppes.....	July 23-July 30...	—	2	To June 25, 50 cases.
Lanaeken.....	Sept. 8.....	1	—	Cholera reported.
La Roche.....	Sept. 9-Sept. 15...	1	—	
Lemberg province.....	Sept. 30-Oct. 6...	1	—	
Liege.....	June 9-Sept. 22...	51	277	In city and suburbs.
Liege province.....	Aug. 5-Oct. 13...	194	332	
Lineburg.....	Sept. 16-Sept. 29...	3	1	
Marche.....	Sept. 9-Sept. 29...	6	—	
Marchienne au Pont.....	Aug. 4.....	2	—	
Mechlin.....	Sept. 9-Sept. 15...	2	—	
Moll.....	Sept. 8.....	1	—	Cholera reported.
Montegnee.....	Aug. 7.....	—	2	
Namur province.....	Sept. 30-Oct. 6...	1	—	
Neupelt.....	Aug. 29.....	1	1	
Ongrée.....	July 17-July 30...	1	1	
Roclenge.....	Sept. 8.....	1	1	Cholera reported.
Rochefort.....	Sept. 16-Sept. 29...	6	—	
Seraing.....	June 15-Aug. 31...	21	16	
Spontin.....	Aug. 19-Aug. 25...	1	—	
Tilleur.....	Aug. 4-Aug. 30...	27	24	
Tirlemont.....	Sept. 16-Sept. 29...	1	—	
Tongres.....	Sept. 9-Sept. 15...	2	—	
Tilleur, Jeneppes, and St. Nicholas.....	Aug. 29.....	20	6	Cholera reported.
Angleur, Alost, Liege, Montegnee, Seraing, St. Nicholas.....	June 25.....	—	—	
Angleur, Buleur, Grace, Jeneppes, Montegnee, Tilleur.....	June 15-June 30...	90	49	
Angleur, Buleur, Fleron, Grace, Montegnee, Olne, Schlessin, Sommague, Tilleur.....	July 18.....	—	—	Cholera reported.
Wandre.....	July 18-Aug. 4....	16	11	
<b>Ceylon:</b>				
Colombo.....	Aug. 11.....	—	—	1 death on steamship Natal.
<b>China:</b>				
Canton.....	June 25 and July 2	—	—	Cholera reported.
Fuchai.....	June 23-June 30...	—	2	
<b>England:</b>				
London.....	July 28-Aug. 4....	5	1	On vessel from Russia lying in the Thames.
Gravesend.....	Aug. 18.....	1	—	On steamship Bradford, from St. Petersburg.
<b>France:</b>				
Ardennes (department).....	Sept. 27.....	1	1	
Avignon.....	July 19.....	1	—	
Bordeaux.....	Aug. 4-Aug. 11...	—	1	
Cognac.....	Sept. 17-Oct. 8...	—	6	
Department of Finistère.....	Apr. 22-May 25...	25	1	13 localities.
	Sept. 28.....	1	1	
Marseilles.....	Aug. 3-Aug. 18...	—	60	
Manoel sur Seille.....	Aug. 10.....	—	—	2 cases reported.
Mont devant Sassey.....	Aug. 10.....	—	—	1 case reported.
Nantes.....	July 7.....	—	—	Cholera reported.
	Sept. 4.....	—	—	Cholera reported.
Paris.....	May 27-Aug. 19...	14	7	
Rheims.....	June 23-July 7...	2	1	
Rueil.....	July 21-July 22...	—	2	
<b>Germany:</b>				
Aix la Chapelle.....	Aug. 27-Sept. 24...	5	—	
Agila.....	Aug. 13-Aug. 20...	1	—	
Allenstein and Labian dist.....	Sept. 3-Sept. 10...	2	1	
Althof.....	Aug. 13-Aug. 20...	4	—	



## Cholera and yellow fever, etc.—Continued.

## CHOLERA—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
<i>Germany—Continued.</i>				
Berlin.....	July 19.....	1	.....	
Bohnsack.....	July 11-July 16....	1	.....	
Brahmunde.....	July 11-July 23....	12	.....	
Briesen district.....	Sept. 3-Sept. 10....	1	1	
Breslau.....	Sept. 12.....	1	1	
Bromberg district.....	Aug. 7-Sept. 3....	17	6	
Burgeln (near Marburg).....	To Sept. 3.....	12	3	
	Sept. 3-Sept. 10....	4	1	
Charlottenberg.....	Sept. 7.....	1	1	
Cologne.....	Aug. 18.....	1	1	
Christefelde.....	July 16-July 23....	12	.....	
Dantzig.....	July 7-Aug. 27....	28	9	4 cases on a boat from Königsberg to Dantzig.
Deutsch Eylau.....	June 28-July 4....	2	.....	
Direchau.....	July 11-July 23....	12	.....	
Dravlitzen.....	Aug. 13-Aug. 20....	12	12	On vessel from Rotterdam.
Duisberg.....	Sept. 8-Sept. 24....	3	12	
East Prussia (government).....	Sept. 11-Oct. 8....	46	6	
	Oct. 15-Oct. 29....	5	12	
Einlage.....	Aug. 13-Aug. 20....	1	.....	
Elbing district.....	Sept. 3-Sept. 10....	2	1	
Emmerich.....	Aug. 13-Aug. 20....	1	.....	
Freinwalde.....	Aug. 20-Aug. 27....	1	1	
Filehue district.....	Aug. 20-Aug. 27....	12	.....	
Fordon.....	July 11-July 23....	12	.....	
Garnsee.....	Aug. 6-Aug. 20....	12	.....	
Gollup.....	July 30-Aug. 27....	9	12	
Grahenhof.....	Aug. 20-Aug. 27....	1	1	
Grandenz.....	July 16-July 23....	12	.....	
Griesthagen.....	Sept. 11.....	15	4	
Grone Walz.....	July 11-July 30....	4	.....	
Grosz Strehlitz.....	Sept. 8-Sept. 14....	1	.....	
Hamburg.....	Sept. 15-Sept. 22....	1	1	Infection in bacteriological laboratory.
Hohenlohehütte.....	Aug. 31.....	.....	.....	Cholera reported.
Holm.....	July 30-Aug. 13....	7	.....	
Huntel.....	Aug. 13-Aug. 20....	1	.....	
Johannisburg district.....	Aug. 1-Aug. 27....	54	19	
Josefinen.....	Aug. 8.....	.....	1	
Käsemark.....	Aug. 20-Aug. 27....	1	1	
Kattowitz district.....	Aug. 27-Sept. 14....	62	21	
Knuzebrack.....	July 11-Aug. 6....	5	.....	
Königsberg.....	Aug. 12-Aug. 27....	17	9	
	Oct. 27-Nov. 3....	3	2	
Königsberg district.....	Sept. 3-Sept. 10....	1	1	
Landsberg.....	Aug. 20-Sept. 3....	3	1	
Lubeck.....	July 18.....	1	.....	} On steamers during voyage from St. Petersburg.
	July 30.....	1	.....	
Lüchow.....	Sept. 23-Sept. 29....	1	1	
Marienburg district.....	Aug. 27-Sept. 10....	14	4	
Mohrungen district.....	Aug. 27-Sept. 10....	5	3	
Myslowitz.....	Aug. 31.....	.....	.....	Cholera reported.
	Sept. 13.....	.....	.....	Cholera reported.
Nakel.....	Aug. 11.....	.....	1	
Neusfahrwasser.....	July 11-Aug. 27....	3	.....	
Neubuch.....	Aug. 13-Aug. 20....	1	.....	
Netze-Warthle district.....	Aug. 13-Oct. 1....	51	22	
	Oct. 15-Oct. 22....	8	.....	
Niedzwedzen.....	Aug. 13-Aug. 27....	17	7	
Oberschliesen district.....	Aug. 16-Aug. 27....	2	2	
Oppeln.....	Sept. 8-Sept. 14....	1	1	
Ortelsberg.....	Aug. 5.....	1	.....	
Osterode.....	Aug. 13-Aug. 27....	7	3	
Plehnendorf.....	June 14-Aug. 27....	21	3	
Rhine district.....	Sept. 30-Oct. 20....	3	1	
Rosenberg.....	Sept. 8-Sept. 14....	1	1	
Rosenthal.....	Aug. 20-Aug. 27....	1	1	
Ruhrroten Harbor.....	Aug. 20-Aug. 27....	2	1	On vessel from Rotterdam.
Sagorsch.....	July 30-Aug. 6....	3	.....	In country districts.
Schidlitz.....	July 11-July 23....	5	.....	
Schilno.....	June 14-Aug. 20....	9	2	Another report gives 5 deaths.
Schnarsee.....	July 30-Aug. 6....	1	.....	
Schöneburg.....	Aug. 20-Aug. 27....	1	1	
Schubin district.....	Aug. 20-Aug. 27....	5	1	
Siemianowitz.....	Aug. 31.....	.....	.....	Cholera reported.
Silesia district.....	May 25-Oct. 27....	249	92	
Stettin.....	Aug. 27-Sept. 6....	8	4	

*Cholera and yellow fever, etc.—Continued.*

## CHOLERA—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
<b>Germany—Continued.</b>				
Stutthof district.....	Sept. 3-Sept. 10...	1	1	
Tangermünde.....	Sept. 8-Sept. 14...	1	1	
Thorn (department).....	July 11-Sept. 10...	32	17	
Torgan.....	Sept. 3-Sept. 10...	1	1	
Troyl.....	Aug. 20-Aug. 27...	4	1	
Usch.....	Aug. 11.....	1	1	
Vistula district, West Prussia.	Sept. 11-Oct. 29...	80	24	
Weichselmünde.....	Aug. 13-Aug. 27...	4	1	
Weisenholte.....	Aug. 11.....	1	1	
Wirsitz district.....	Aug. 20-Sept. 3...	7	3	
Wilken.....	Aug. 27-Sept. 3...	4	1	
At 4 villages near Kolmar...	Aug. 20-Aug. 27...	6	1	
<b>Holland:</b>				
Alblasserdam.....	Sept. 7.....	1	1	
Alkmaar.....	July 14-Aug. 15...	3	2	
Amstelveen.....	Aug. 14-Aug. 25...	3	1	
Amsterdam.....	Aug. 1-Oct. 6...	100	35	
	Oct. 9-Oct. 17...	4	1	
	Oct. 18 to 26.....	4	1	
Arlanberg.....	Sept. 6-Sept. 13...	1	1	
Ankerveen.....	Oct. 1.....	10	1	
	Oct. 6-Oct. 13...	1	1	
Barsingerhorn.....	Aug. 2-Sept. 12...	4	1	
Benebroek.....	Aug. 2-Sept. 8...	2	1	
Beverwyk.....	July 14-Aug. 15...	3	1	
Bleslensgraaf.....	July 11-Aug. 8...	1	2	
Boskoop.....	Sept. 24-Sept. 29...	1	1	
Breukelen, St. Pieters.....	Sept. 25.....	1	1	
Broenhaven.....	July 11-Aug. 8...	4	1	
Burgerveen.....	Sept. 5-Sept. 26...	4	3	
Charleroi.....	Aug. 10.....	1	1	
Cosvorden.....	July 24-July 26...	1	1	
Culemborg.....	Sept. 5-Sept. 12...	1	1	
Dordrecht.....	Aug. 2-Sept. 6...	4	3	
Dordrecht.....	Aug. 2-Aug. 12...	1	1	
Elsobek.....	Sept. 1.....	1	1	
Elslo.....	July 18-Sept. 3...	2	1	
Enkhuizen.....	Oct. 6-Oct. 13...	1	1	
Erp.....	July 14-Aug. 8...	1	1	
Flushing.....	Aug. 27-Sept. 1...	4	2	On vessels in harbor.
Giesendam.....	Sept. 29-Oct. 6...	2	1	
Goch.....	Aug. 30-Sept. 3...	1	1	
Groenendal.....	July 27.....	1	1	
Haarlem and environs.....	July 14-Sept. 30...	20	9	
Haarlemmermeer.....	Aug. 15-Oct. 10...	6	1	
	Oct. 24.....	1	1	
Halfweg.....	Aug. 10.....	5	2	
Heemkirk.....	Sept. 5-Sept. 12...	1	1	
Heer.....	Aug. 2-Sept. 1...	3	1	
Heider.....	Aug. 14-Sept. 19...	3	1	
Helvoetsluis.....	Sept. 24-Sept. 29...	1	1	
Heilvorseer.....	Oct. 1-Oct. 10...	1	1	
Hengen.....	Sept. 1.....	1	1	
Jdskenhingen.....	Sept. 24-Oct. 6...	5	1	
Jutlass.....	Sept. 8-Sept. 12...	3	1	
Kapelle.....	Sept. 6-Sept. 17...	2	1	
	Oct. 6-Oct. 20...	2	1	
Katendrecht.....	Aug. 21-Aug. 30...	3	3	
Kinderdyk.....	Aug. 22.....	1	1	
Koehorn.....	Aug. 14-Sept. 12...	1	1	Several cases.
Kouderkerke.....	Oct. 13-Oct. 20...	7	4	
Kralingen.....	Sept. 7-Oct. 6...	3	2	
	Oct. 6-Oct. 13...	1	1	
Krommanle.....	Aug. 14-Aug. 23...	1	1	
Kuilenberg.....	Sept. 9.....	1	1	
Laaudan.....	Sept. 5-Sept. 12...	1	1	
Landameer.....	Sept. 1-Sept. 12...	2	2	
Langerak.....	Sept. 4-Sept. 17...	2	1	
Langerdyk.....	July 11-Aug. 29...	1	10	
Leyden.....	July 14-Aug. 14...	2	1	
Lobith.....	Aug. 18.....	1	1	Cholera reported.
Maestricht.....	July 18-Sept. 10...	176	84	Including 48 cases and 23 deaths in suburbs.
Meern district.....	Oct. 6-Oct. 13...	8	5	
Middelrode.....	July 11-Aug. 8...	1	1	
Mydrecht.....	July 14-Aug. 8...	1	1	
	Aug. 18.....	1	1	Cholera reported.

## Cholera and yellow fever, etc.—Continued.

## CHOLERA—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
<b>Holland—Continued.</b>				
Nieuwer Amstel.....	Aug. 14-Aug. 23...	2	.....	
Nieukirk.....	Aug. 27-Sept. 8.....	.....	1	
Nieuwerpoost.....	Sept. 2.....	.....	1	
North Brabant.....	Sept. 29-Oct. 6.....	1	.....	
Oirschat.....	Aug. 28.....	1	.....	
Oostzan.....	Oct. 1-Oct. 10.....	2	.....	
Papendrecht.....	Sept. 8-Sept. 12.....	4	3	
Purmerend.....	Aug. 14-Oct. 10.....	3	.....	
Rantendrecht.....	Aug. 23.....	1	1	
Roelofsarendsveen.....	Oct. 13-Oct. 20.....	.....	2	
Roermond.....	Aug. 2-Aug. 8.....	1	1	
Rotterdam.....	Aug. 3-Aug. 25.....	8	7	
	Aug. 30.....	1	1	
	Sept. 8-Sept. 22.....	3	3	
Spykenisse.....	Aug. 25-Sept. 3.....	4	2	
The Hague.....	Oct. 6.....	.....	.....	1 case reported.
Tillburg.....	Sept. 4-Sept. 12.....	6	5	
Utrecht.....	July 14-Oct. 10.....	7	6	
	Oct. 6-Oct. 13.....	.....	1	
Velzen.....	To Aug. 21.....	7	.....	
Vleuten in der Meer.....	Sept. 24-Oct. 10.....	6	3	
Vroenhoved.....	July 14-Aug. 10.....	2	1	
Waddingsveen.....	Oct. 13-Oct. 20.....	1	.....	
Weesp.....	Oct. 1-Oct. 10.....	1	.....	
	Oct. 24.....	7	.....	
	Oct. 6-Oct. 20.....	6	4	
Wertgrastyk.....	July 11-Aug. 8.....	.....	1	
Womerveer.....	July 11-Aug. 18.....	1	2	
Woydrecht.....	July 14-Aug. 8.....	1	.....	
Wyk-an-Zee.....	Aug. 28.....	1	.....	
Wykenmeer.....	Sept. 11.....	1	.....	
Zaandam.....	July 14-Oct. 10.....	4	5	
Zutphen.....	Sept. 4-Sept. 26.....	6	3	
Zwiggette.....	Sept. 17-Sept. 26.....	1	.....	
Zvidschalwyk.....	Aug. 18.....	.....	.....	Cholera reported.
<b>India:</b>				
Bombay.....	May 16-Sept. 25.....	.....	339	
Calcutta.....	May 6-Sept. 15.....	.....	346	
Madras.....	Apr. 21-May 4.....	.....	2	
<b>Italy:</b>				
Leghorn.....	June 17-June 23.....	1	.....	
Procida.....	Aug. 31.....	1	.....	
<b>Japan:</b>				
Hio-go.....	July 14-Aug. 18.....	6	3	
<b>Russia:</b>				
Archangel.....	Sept. 9-Sept. 29.....	206	102	
Astrakhan (government).....	July 8-Sept. 22.....	189	125	
Baku.....	Aug. 19-Sept. 29.....	6	4	
Bessarabia.....	July 18-Sept. 29.....	1615	617	
Brest (city).....	July 2-July 20.....	34	13	
Cherson (government).....	Sept. 2-Sept. 4.....	52	32	
	Sept. 19-Oct. 6.....	29	24	
Courland (government).....	July 3-Sept. 15.....	172	96	
Cronstadt (government).....	June 20-Aug. 30.....	219	80	
Don district.....	Aug. 26-Sept. 8.....	8	3	
Estland (government).....	July 1-Sept. 29.....	290	128	
Grodno (government).....	June 2-Sept. 22.....	2781	1208	
Finland.....	To July 22.....	11	4	
	July 23-Sept. 10.....	21	17	
Hangoe (Finland).....	July 11-July 18.....	2	1	
Joachimsthal.....	Sept. 7-Sept. 20.....	16	.....	
Kalisch (government).....	July 8-Oct. 3.....	573	259	
Kaluga (government).....	Aug. 21-Sept. 29.....	70	32	
Kasan.....	Aug. 12-Sept. 30.....	238	141	
Kieff (city).....	Sept. 13-Sept. 29.....	52	45	
Kielce (government).....	June 17-Aug. 24.....	5815	2807	
	Aug. 22-Oct. 2.....	1353	789	
Kjasan.....	Aug. 12-Aug. 18.....	90	43	
Kostroma.....	July 29-Sept. 29.....	483	190	
Kovno (government).....	May 6-Oct. 13.....	645	266	
Kursk (government).....	Sept. 2-Sept. 8.....	2	.....	
Livland (government).....	To Aug. 13.....	45	23	
	Aug. 12-Sept. 22.....	284	132	
Lodz Government.....	Aug. 13.....	231	143	
Lomza (government).....	July 21-Sept. 19.....	513	359	
	Sept. 16-Sept. 29.....	1	2	
Lublin (government).....	July 29-Oct. 19.....	544	264	

## Cholera and yellow fever, etc.—Continued.

## CHOLERA—Continued.

Place.	Date.	Cases.	Deaths.	Remarks.
<b>Russia—Continued.</b>				
Minsk.....	July 29-Sept. 29...	539	228	
Moscow (city).....	Aug. 29-Aug. 31...	1	1	
Mohilev.....	Aug. 4.....	4	2	
	Sept. 16-Sept. 22...	6	4	
Malva (city).....	May 28-May 29...	20	10	
Narva (city).....	July 3-Sept. 20...	105	44	
Novgorod (government).....	July 8-Oct. 6...	2139	1117	
Olonez (government).....	July 4-Sept. 29...	505	270	
Penza.....	Aug. 26-Sept. 2...	1	1	
	Sept. 23-Sept. 29...	14	6	
Perm (government).....	Aug. 19-Sept. 29...	205	76	
Petrikov (government).....	May 13-Oct. 20...	4557	2366	
Plock (government).....	May 6-Sept. 29...	3164	1634	Includes city of Ciechanow, June 1 to 19, 157 cases, 74 deaths.
Podolia (government).....	May 9-Sept. 29...	1653	688	
Poltava.....	Sept. 23-Sept. 29...	7	4	
Pskov.....	Aug. 19-Oct. 6...	101	41	
Radom (government).....	May 6-Oct. 4...	6097	3059	
Revel.....	July 12.....	1	1	
Riga.....	Aug. 14-Oct. 23...	356	184	
Ryasan (government).....	Aug. 12-Oct. 6...	1102	531	
Samara.....	Aug. 12-Oct. 6...	177	92	
Saratov.....	Aug. 14-Sept. 29...	330	260	
St. Petersburg (gov't).....	July 1-Oct. 10...	2143	568	
St. Petersburg (city).....	July 1-Oct. 5...	4512	2214	
	Oct. 9-Oct. 22...	19	8	
Serenetz (government).....	July 10.....	11	5	
	July 16.....	13	6	
Simbirsk.....	Sept. 16-Oct. 6...	28	16	
	Aug. 19-Sept. 15...	16	8	
Smolensk.....	July 22-July 28...	1	1	
Tambov.....	Sept. 16-Oct. 6...	79	47	
Tambov (government).....	Aug. 19-Sept. 15...	35	20	
Tschernigov.....	Sept. 30-Oct. 6...	10	6	
Taurida.....	Sept. 13-Sept. 26...	9	4	
Tiflis.....	Sept. 23-Sept. 29...	3	1	
Tobolsk.....	Aug. 25-Aug. 30...	6	.....	
	Sept. 16-Sept. 22...	15	10	
Tomsk.....	July 22-July 28...	16	5	
Tula (government).....	May 20-Sept. 15...	57	11	
Tver.....	Aug. 12-Sept. 8...	24	7	
	Sept. 16-Sept. 29...	16	10	
Ufa.....	Sept. 4-Sept. 19...	6	3	
Viatka (government).....	Aug. 13-Oct. 6...	44	30	
Vladimir.....	Aug. 19-Oct. 6...	360	200	
Volhynia.....	Aug. 7-Sept. 22...	164	58	
Warsaw (government).....	Apr. 28-Oct. 23...	5988	2974	
Warsaw (city).....	May 6-Oct. 7...	1334	573	
Werchnye Saele.....	July 16.....	30	9	
Witibst.....	July 22-Oct. 6...	414	157	
Wologda.....	Aug. 13-Oct. 6...	17	7	
Yaroslav.....	July 22-Sept. 29...	599	263	
Ykaterinoslav.....	Aug. 26-Oct. 6...	115	56	
Zedletz.....	July 16-Oct. 4...	1645	821	
Kiev, Mohilev, Orel, Pskow, Jaroslav, Smolensk.	Aug. 10.....	10	8	
<b>Spain:</b>				
Lucena.....	Aug. 9.....	1	1	
<b>Sweden:</b>				
Stockholm and Fejan Quarantine Stations.	July 4-Aug. 19...	29	5	
<b>Turkey:</b>				
Adana.....	Sept. 1-Sept. 14...	16	10	
Adrianople.....	July 12-Sept. 11...	342	204	
	Sept. 29-Oct. 7...	16	8	
Akschehi.....	June 27.....	3	1	
Akserei.....	June 30-July 3...	7	6	
Angora.....	May 31-Oct. 1...	1259	723	
Arabson.....	June 30-July 3...	.....	1	
Avanas.....	June 8-June 26...	27	.....	
Bey Bazar.....	Sept. 27.....	.....	.....	Cholera reported.
Broussa.....	Sept. 27.....	.....	.....	Cholera reported.
Ben Bunar.....	May 10-May 21...	.....	7	
Biledjik.....	Oct. 1-Oct. 5...	6	4	
Bogazlian.....	June 3-June 19...	21	.....	
Constantinople.....	Apr. 1-Apr. 30...	.....	5	
	Oct. 1-Oct. 30...	2	2	

## Cholera and yellow fever, etc.—Continued.

## CHOLERA—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
<b>Turkey—Continued.</b>				
Damascus.....	Aug. 29-Sept. 17....	13	7	
Divriki.....	May 24-June 22....	7	3	
Erbaa.....	June 5-June 24....	19		
Erzingen.....	Aug. 15.....	6	3	
Ezeroum.....	Apr. 17-Sept. 22....	607	362	
	Oct. 2-Oct. 6.....	51	38	
Gumusch Hadji.....	June 26.....	1		
Harpoot.....	Aug. 11-Aug. 18....			
Hodja.....	Sept. 2.....	1	1	
Hudavendkiar.....	July 22-Sept. 24....	439	226	
	Sept. 27-Oct. 6....	21	13	
Iskilih.....	May 19-June 1.....		85	
Ismid.....	Oct. 28-Oct. 30....		2	
Izneek.....	Aug. 4.....		3	
Jozgat.....	May 31-June 1.....		3	
Kadikoi.....	May 16-June 26....	3	15	
Kaiscei.....	June 21-June 26....	359		Includes vicinity.
Kastamouni.....	May 5-Sept. 8.....	146	168	
Kaza von Zeila.....	May 16-June 26....		145	
Kirschehr.....	June 3-June 27....	130		
Koula.....	May 13-Sept. 20....	503	328	
Lule Burgas.....	Sept. 29-Oct. 2....	24	14	
Maaden.....	June 26.....	2		
	Aug. 9.....			Cholera reported.
Mahmurat el Aziz.....	May 13-Sept. 17....	685	302	
Marsowan.....	June 21-Aug. 18....	4		
Milan.....	March 19-Apr. 16....	41	27	
Mustapha Pasha.....	July 31-Aug. 10....	20	10	
	Sept. 15.....			Several cases.
Musch.....	Sept. 18.....		2	
Nebk.....	Sept. 2-Sept. 6....	8	4	
Neuschehr.....	June 30.....		1	
Nikaar.....	May 27-May 30....		11	
Oolash.....	Aug. 11-Aug. 18....			Cholera reported.
Sandjak Ismid.....	Aug. 29-Sept. 13....	41	35	
Sansoum.....	May 29.....	12	6	
Sivas.....	Apr. 15-Aug. 12....	5325	1687	
Sparta.....	July 21.....			Cholera reported.
Tokat.....	May 17-June 27....	67	23	
Torodik.....	Sept. 29.....	12	7	
Trebizond.....	May 16-June 29....	50	5	
Trokia.....	Aug. 22.....	1		
Tschataldga.....	Aug. 9.....			Cholera reported.
Unia.....	June 18-June 19....	11		
Urgup.....	May 18-July 3....	15	2	
Vau.....	Sept. 20.....			Cholera reported.

## YELLOW FEVER.

<b>Brazil:</b>				
Rio de Janeiro.....	Apr. 29-Sept. 15....	438		
	Oct. 13-Oct. 20....		1	
Santos.....	Oct. 6-Oct. 13....	2		
<b>Cuba:</b>				
Cardenas.....	July 1-Sept. 15....	158	28	
Cienfuegos.....	Apr. 29-Oct. 29....	40	58	Fever reported.
Crucos City.....	Aug. 1.....			
Guantanamo.....	June 1-Aug. 31....	12	11	
Havana.....	Apr. 27-Nov. 8....	804	309	
Manzanillo.....	July 1-Aug. 31....	4	2	
Manzanaragna.....	Aug. 1.....			Yellow fever reported.
Matanzas.....	June 20-Oct. 17....	100	26	
	Nov. 1-Nov. 7....	5	2	
Sagua la Grande.....	July 1-July 7....		1	
Santiago de Cuba.....	Apr. 26-Oct. 27....	102	29	
	Oct. 28-Nov. 10....	11	5	
<b>Ecuador:</b>				
Guayaquil.....	May 4-May 10....		3	
<b>Honduras:</b>				
Nacaome.....	Apr. 8-Apr. 28....		5	
<b>Mexico:</b>				
Laguna.....	Sept. 13.....			Yellow fever reported.
Vera Cruz.....	Apr. 27-Oct. 18....	197		
	Nov. 1-Nov. 8....		2	



*Cholera and yellow fever, etc.—Continued.*

## YELLOW FEVER—Continued.

Places.	Date.	Cases.	Deaths.	Remarks.
Nicaragua:				
Granada.....	Sept. 14.....			} Yellow fever reported to be epidemic.
Managua.....	Sept. 14.....			
Panama:				
Panama.....	Sept. 13.....	1		Yellow fever reported. (Infection at Guayaquil.)
Salvador:				
La Libertad.....	Aug. 3.....			Yellow fever reported.
San Salvador.....	July 14-Aug. 25...	26	15	
	Sept. 10-Sept. 30...		49	
West Indies:				
Antigua.....	Apr. 29-May 5....	1	1	Confined to barraeks. Fever not among shipping.
Puerto Rico (San Juan).....	June 4-Sept. 6....	184	29	
	Nov. 1-Nov. 7....		1	
Port of Spain (Trinidad).....	July.....		1	
Yucatan:				
Merida.....	May 25-May 31....		1	
Venezuela:				
Maracaibo.....	Sept. 15-Sept. 29...	7	1	

## BAHAMA ISLANDS.

*Increase of leprosy in the Bahamas.*

OFFICE OF SPECIAL AGENT TREASURY DEPARTMENT,  
Jacksonville, Fla., November 3, 1894.

SIR: \* \* \* I would mention incidentally, and not germane to my mission, that I was informed by Mr. Jarvis, before mentioned, that the plague of leprosy was on the increase on the Bahamas, and a hospital for those afflicted had been established at Nassau. The proximity to our coast of these islands renders a careful watch eminently necessary for us to guard against it. I have called the attention of Dr. Porter, the State health officer of Florida, to this, and now call it to your attention that the proper authorities of the General Government may be informed.

\* \* \* \* \*

Very respectfully,

JOHN W. ANDERSON,  
Special Inspector.

Mr. S. W. PAUL, *Special Agent, Tampa, Fla.*

## BRAZIL.

*Sanitary report of Rio de Janeiro.*

RIO DE JANEIRO, October 23, 1894.

SIR: I have the honor to inclose the report for week ended October 20, 1894.

There was again 1 death from yellow fever, and from *accessio pernicioso* there were 6, an increase of 1; 1 from typhoid fever, a decrease of 2, and 1 each from beriberi, diphtheria, influenza, and whooping cough, there having been none from either of these diseases during the foregoing week. Smallpox has dropped from the list. The total from all causes was 205, being 30 less than in the week before.

There are always more or less cases of these and other zymotic diseases here at the changes of the seasons, but this year none of them are considered to be epidemic. The case of diphtheria was probably imported from Rio de la Plata, where the disease is stated by the public newspapers to be endemic. As for the case of influenza, as there is no epidemic here at present, it may have been only a "bad cold."

Since last report, I have inspected and given bills of health to the following named vessels: October 17, British steamship *Woolwich*, for New Orleans, La.; October 19, British steamship *Freshfield*, for New York; October 20, British steamship *Bellardon*, for New Orleans, La.; British steamship *Olbers*, for New York; and British steamship *Afghan Prince*, for New York, from Rosario, Buenos Ayres.

Respectfully, yours,

R. CLEARY, M. D.,  
Sanitary Inspector, M. H. S.

#### CANADA.

##### *Smallpox in Ontario.*

SIR: I beg to make the following statement regarding the prevalence of smallpox in Ontario at the present time: 1 case at Sandwich, Essex County, week ended November 1, and 1 case at Strathroy, Middlesex County, week ended November 12. Source, Detroit, both cases. Windsor cases are all recovered.—PETER H. BRYCE, *Secretary Provincial Board of Health.*

#### FRANCE.

##### *The serum therapy of diphtheria.*

INSTITUTE PASTEUR, PARIS, October 20, 1894.

SIR: While attending the eighth session of the International Congress of Hygiene and Demography, held in Budapest in September last, Prof. E. M. Roux, of the Pasteur Institute, read a paper before the section of hygiene on the serum therapy of diphtheria, in which he gave to the world the results of his labors during the past three years. No subject at any congress has, I dare say, been the cause of so much discussion as this, and, on the whole, elicited nothing but praise. The results obtained by Prof. Roux in the treatment of cases of diphtheria are so astounding that at first one is almost compelled to ask one's self "Is this possible," but when the methods are known and the array of statistics are given, there can hardly remain a trace of doubt. A greater part of what I am going to say has, I know, been published in the daily and medical press, and the only apology I offer for the repetition is that it is well worth reading twice.

It appears that at last we have found a method which is not only good in one disease, but the principle of the method can be applied to many. It at last has opened up a new field for work in infectious diseases.

Availing myself of the kind invitation of Prof. Roux to come to the institute and there learn by practical experience the exact methods employed in the preparation of the antidiphtheritic serum, and also to observe the effects of the new treatment at the hospital for diphtheria, I arrived in Paris on September 20, and immediately commenced my work.

Every facility has been afforded me by the gentlemen connected with the institute to make my stay pleasant and profitable. My sincere thanks are due to all, and especially so to Prof. Roux and Drs. Martin and Chaillu.

I have been in no hurry to report on what I have seen, nor to form an opinion of the merits of the treatment. After spending a month at the institute and hospital, I have seen sufficient to enable me to form an intelligent estimate of its value. There is still more to be said in its favor than was claimed for it by Prof. Roux at Budapest. It has passed the experimental stage, and will in the future be reckoned in value for the treatment of diphtheria as vaccine is for the prevention of smallpox.

The steps necessary in the preparation of the serum antitoxine may be divided into three: first, the preparation of the toxins of diphtheria; second, the immunization of animals; third, preparation of and conservation of the serum.

*Preparation of the toxins.*—The toxins are prepared from a bouillon culture of virulent bacilli of diphtheria. As the methods employed in the institute are somewhat different from those of other continental laboratories, and in many instances, as in this, are superior, I will give them in detail. A virulent culture of the *bacillus diphtheriae* is selected—one which is fatal to a 500-gram guinea pig in from twenty-four to thirty hours. From this culture a flask of alkaline peptone bouillon is inoculated. After it has remained in the thermostat for twenty-four hours at a temperature of 36° C., it will be found rich in bacilli. This culture may be termed the stock culture for others which are destined for the toxins. For this latter a special form of culture flask is employed, in order to permit of a special method of cultivation of the bacilli, whereby the toxins formed are much stronger and, it is claimed, somewhat different in their character than when the ordinary methods are employed. The flasks used are known as the Fernbach flasks and are large, flat-bottomed, Florentine flasks, provided with a tubulature on the side, within about an inch of the bottom. The neck and tubulature are constricted near the mouths for the reception of the proper cotton plugs. These flasks are filled to a short distance below the tubulature with an alkaline peptone bouillon and then sterilized. Soon after this the flasks are inoculated with the bouillon culture of the *bacillus diphtheriae*, about 40 c. c. to each flask. They are then placed in the thermostat for twenty-four hours in order to "start" them, when each flask is connected with an aspirator and a current of air is slowly kept moving through the flask in the direction from the mouth and to the tubulature. The air, before entering the flask, is passed through an ordinary wash bottle, in order that it may be moist, so as to prevent the evaporation which would occur, as well as to maintain the best conditions for culture. This method, so far as I know, is practiced only in this institute. It is the discovery of Dr. Fernbach, who observed that so long as the bacterium remains in the active living state—or, in other words, maintains its integrity—little or none of those substances known as toxins or ptomaines are set free, but as soon as you present the conditions most favorable for the development of bacteria the life of the individual bacterium is shortened, and it completes its cycle, ending in proliferation and setting free the nucleins from it.

When a bacillus, such as that of diphtheria, is grown under the same conditions as cited above there is a greater quantity of the nucleins formed than would occur under the ordinary conditions of culture.

These flasks are kept at a temperature of 37° C. for from three to four weeks. At this time the bouillon is rich in flaky masses of the bacilli.

If examined microscopically the masses are found to be nearly, if not all, disintegrated bacilli. Sometimes a few bacilli are encountered, but they have in a great measure lost their characteristic form.

*Filtration of the cultures.*—Without further preparation the cultures are filtered through a Chamberland filter tube into sterilized flasks, and kept until required for use. Each lot of the toxins are tested for virulency by standardizing it by injections into guinea pigs. The usual strength, being  $\frac{1}{10}$  c. c., will kill a 500-gram guinea pig within twenty-four hours.

The filtrate will preserve its virulency for a considerable time, provided it is kept away from light and maintained at an equal temperature. Boiling the cultures or even heating them to a degree that will kill the bacilli is not practiced, for it has been found that either process impairs the strength as well as changes some of its properties. Large quantities of cultures are kept growing, a special room being employed for this purpose, as each horse will require a large amount of the toxin to immunize it and to maintain the antitoxine in the blood after immunization is completed.

*Immunization of animals.*—The antitoxine for the treatment of diphtheria is in solution in the blood of an animal rendered refractory to the disease. The manner of producing immunity in an animal may be performed in one or two ways—by injections of the toxins or by inoculations of the bacilli. The former method has been found to be the best, and at present is the only one in use. In the experiments of Prof. Roux and Dr. Martin animals of all kinds were used, but now they use the horse, as it has been found to be the most satisfactory. It stands the process of immunization better, and gives a serum stronger than other larger animals, i. e., in the same length of time, besides furnishing a larger amount of serum. The present method of immunizing the horse is somewhat different in its details from that given in Prof. Roux's paper, being much simpler.

A horse is selected which is sound, having been subjected to injections of tuberculin and mallein, the age not playing any particular part; usually it is from 6 to 8 years—a cab horse which has seen better days. At first a trial injection of the toxin is made, usually less than a cubic centimeter, carefully noting the general and local reaction. In some horses even the trial dose has a profound effect, but usually there is quite considerable local and general reaction. If the animal becomes quite ill a small quantity of Gram's solution is added to the next dose, and even the next following if the reaction is too strong. After this the horse bears the increasing dosage with little or no discomfort.

The general plan for the injections is as follows: First day,  $\frac{1}{10}$  c. c. of pure toxins, of which  $\frac{1}{10}$  c. c. fatal to 500 grams of guinea pig; eighth day, 1 c. c.; fourteenth day,  $1\frac{1}{2}$  c. c.; twentieth day, 2 c. c.; twenty-eighth day, 3 c. c.; thirty-third day, 5 c. c.; thirty-eighth day, 8 c. c.; forty-third day, 10 c. c.; forty-seventh day, 20 c. c.; fifty-first day, 30 c. c.; fifty-sixth day, 50 c. c.; sixty-second day, 50 c. c.; sixty-eighth day, 60 c. c.; seventy-fourth day, 100 c. c.; eightieth day, 250 c. c.; eighty-eighth day, 250 c. c.

When the first injections are given there is quite a marked local and general reaction to the poison; there is an edema at the point of the injection, which is followed by a distinct inflammatory process—hard in the center and soft and cedematous at its periphery. The general reaction is manifested by a rise in the temperature,  $1^{\circ}$ – $2^{\circ}$  C., loss of appetite, and occasionally cramps. The reaction must be taken as the guide in the future dosage, and a sufficient time must be allowed to elapse



between the injections for the complete recovery from the general and local effects. As the quantity of the toxins is increased the general effects generally decrease, perhaps a rise of a degree for twenty-four hours. The local effect partakes more of an oedema, and has the character of an inflammation.

At a certain stage, usually after two months' treatment, when 50 to 60 c.c. can be injected without harm, there is no general reaction, but a large oedema at the site of the injection, which disappears within from twenty-four to forty-eight hours. Towards the last, even when 200-300 c. c. are given, there is only an enormous oedema, which disappears within from twelve to eighteen hours. When these inordinately large quantities can be given with only a local reaction being manifest, the horse has come well under the influence, and the blood will be found to be rich in the antitoxine.

There is a curious fact well worth noting: At the end of the second month of the treatment, when the horse can bear as much as 50-60 c. c. of the toxins without discomfort, the blood will be found to contain but little of the antitoxine. The antitoxine only appears after repeated stimulation of the cells (?) by the large and frequent doses of the toxins.

The subcutaneous injections do not yield a serum as rich in the antitoxines as when the toxins are injected directly into the blood current. When it is desired to do this, towards the last of the treatment, the toxins are injected directly into the jugular vein. The process is tedious and requires a longer time, and for practical purposes has not been found so satisfactory as the simple subcutaneous injection. The strength of the serum is tested by using young guinea pigs of 500 grams weight. One gram of the serum usually will protect 50,000 grams of guinea pig against a fresh virulent culture of the *bacillus diphtheriae*. This is the strength that is used in the hospitals. By the intravenous injections a serum of the protective strength of 1 to 100,000 can be obtained. For practical purposes the 1 to 50,000 strength has been found as satisfactory as the stronger.

*Withdrawal of blood—Preparation of the serum.*—The abstraction of blood from the horse is a simple procedure, the blood being drawn from the jugular vein by means of a special trocar and canula. The trocar and canula are about 4 millimeters in diameter, and are somewhat larger than the ordinary form. The top of the canula is shouldered so as to receive a metal plug, which is also canulated. This metal plug is attached to a rubber tube a half meter in length; in the other end of the tube is attached a glass tube of 10 c. m. length. The instruments, tubes, etc., are sterilized, and then kept in a 5 per cent solution of carbolic acid. Ordinary wide-mouthed bottles of 2,500 c. c. are used for receiving the blood. These are prepared by having pieces of paper tied over the mouths, and over this another paper in the shape of a hood is placed; the bottles are then sterilized. When all these preliminaries are finished, the horse is made ready for the bleeding; a small "twitch" is placed around the upper lip and made taut; the blind fold is thrown over the eyes. The hair is next clipped from over the place for the insertion of the trocar, and then scrubbed with carbolic acid, 5 per cent solution. The skin is incised sufficiently to allow the trocar to pass through the tissues without the force that would be required to puncture the vein if the skin was intact, thus preventing accidental wounding of the vein. The jugular vein is compressed by the hand and the trocar is passed well into the vein, the point being directed downwards. While this is being done, the assistant holding the bottle plunges the glass



tube into it, when the trocar is withdrawn, and the canulated plug is inserted into the canula.

Six to eight liters are taken from the horse at one bleeding. When the bottles are filled to the desired quantity the blood is allowed to coagulate, when it is placed in the ice chest. Within twenty-four hours the serum will be found to have separated. Usually from 2½ to 3 liters are obtained from each bleeding. The serum is withdrawn from the bottles by means of the Pasteur filling pipettes, and transferred to the proper receptacle, for use or preservation. The manner of its preservation is exceedingly simple: A small piece of camphor is placed in each bottle or flask; this, it is claimed, tends to preserve it, should any chance micro-organism be dropped in, and exerts an inhibitive influence against its deterioration. If there is a suspicion that the serum has become contaminated in the various manipulations, it can be filtered through a Chamberland filter. This process will doubtless be applied when it is desirable to keep the serum for a long time. The serum can also be desiccated in vacuo. In this state it can be preserved for a long time without deteriorating, although it loses its strength to a considerable degree in the desiccating process. There is another objection to it in the dried state: It is the fact that it causes considerable irritation when injected subcutaneously, which does not follow the injection of the serum.

It is also noted that the serum has a tendency to deteriorate after being kept for awhile; especially is this to be observed when it is exposed to light or subjected to variations of temperature. This disadvantage they hope to soon overcome. I do not mean that it will not keep for two or three months before it begins to show deterioration. It has much the same behavior as vaccine.

*Mode of Administration, etc.*—The serum is administered hypodermatically, using a special syringe of 20 c. c. capacity. The needle is not attached directly to the barrel of the syringe, but is joined by a small rubber tube of about 5 inches in length. This feature permits of considerable movement on the part of the patient without causing further pain, and also permits better control of the injection.

The usual site for the injection is in the side in the loose integument over the eighth and ninth costal cartilages, the needle being thrust into the skin with the point towards the operator. This prevents the needle from being dislodged during the injection. The serum is slowly injected, and is attended with scarcely any pain, the little patients scarcely, if ever, complaining of anything save the prick of the needle, and this is slight. The serum *per se* is not painful; the dose is rapidly absorbed; all traces of it usually disappear within twenty minutes.

The number and frequency of the injections depend entirely upon the gravity of the case. In slight cases, or in those where the malady is of short duration, one dose of the usual quantity, 20 c. c., will usually be sufficient; while in others graver in character several doses will be required. This is especially so in cases of diphtheria associated with the pus organisms.

During my stay in Paris ample opportunities have been afforded me to witness the effects of the serum therapy in the treatment of cases of diphtheria in the hospital for sick infants. From my observations made therein—for one month—I can not but corroborate the statements already published. I have been able to follow the cases from the time they entered the hospital until their discharge, noting everything which has been done. I have tried hard to find fault, to pick flaws in the statistics, but have signally failed. The work must stand for itself.

Of the whole number of cases which have come under my observation (82), 3 have died, about 4 per cent. This percentage of recoveries is greater than for the past three months. From August 1 to October 15 the mortality has been a little over 11 per cent. The statistics show that there has been a gradual diminution of the mortality since last May. This can be best explained by two reasons: First, the climatic conditions; second, a better knowledge of the serum therapy.

The cases are, on their admission, classified, according to their symptoms, as anginas and croups. As soon as possible a bacteriological examination is made of each case according to Loeffler's method, and they are then given their true classification.\* They are divided into three classes—diphtheria pure, diphtheria associated with streptococcus or staphylococcus, or with both, and simple anginas. The treatment of the case depends largely upon the above classification.

As a routine measure the little patient is given an injection of the serum, from 15 to 20 c. c., as soon as it is admitted. If the bacteriological examination shows the case to be one of diphtheria, and of short duration, another injection may be given, which is usually sufficient. If found to be one with diphtheria and the pus cocci, the dose is increased and given at short intervals. If a simple angina, nothing further is done. Great stress is laid upon the class of cases in which the diphtheria is complicated with the pus cocci, especially so when the streptococci are present. The prognosis in these is, from the very commencement, looked upon as grave. The treatment avails but little after the malady has existed three or four days. This class of cases, it is needless to add, furnishes the majority of the deaths.

If these cases can be taken in hand during the commencement, or even as late as the second day, the result is, as a rule, good. Cases in which tracheotomy becomes necessary are nearly, if not always, those in which there is a double infection.

The efficacy of the serum is better shown in the tracheotomies than in all the others. The mortality under the usual conditions has been from 1889 to 1894 something frightful to contemplate; fully 85 per cent of the little patients have succumbed. Since the commencement of the serum treatment the death rate has been lowered to less than 47 per cent, and the cases upon which tracheotomy must be performed are fewer and fewer. The operation is seldom if ever done on cases above 6 years—usually under 4, the majority from 1 to 3. Intubation has not been adopted in either of the diphtheria hospitals. An attempt is now being made by Drs. Martin and Chaillu to have it introduced. I am of the belief that this procedure will still further reduce the mortality.

Another fact worthy of note is that there are seldom any of the complications in diphtheria that were formerly present. Diphtheritic paralysis is rare, pneumonias are less frequent, and, although albuminuria exists in nearly every case of several days' duration, fatal cases of nephritis are gradually becoming less frequent. To better illustrate the effect of the serum, I have taken at random several cases which have been under my own observation, and have transcribed the temperature charts. I regret that the pulse and respiration curves can not be given, as they were not kept, or if so, imperfectly. The temperature is taken

\*The service of the hospital is not under the direction of Prof. Roux. He has been permitted by the staff to make his experiments in the diphtheria pavilion. The classification is one of routine practice, little or no attention being paid to the true condition of the case. Hence diphtheria infection and simple anginas are treated alike, the latter constantly exposed to infection.

as the guide. Experience has shown that the pulse and respiration are synchronous with the temperature. It is now possible to immunize the reagents to the disease. Unfortunately the immunity is not of long duration. The longest time in which it is thought to be protective is six weeks, one injection from 10 to 20 c. c. being sufficient. This has not only been practiced in the wards of the hospital, but in families of children where one has succumbed to an attack of diphtheria and others have been exposed. In some instances when the child is practically in the commencement of the disease, the bacilli have been found in the saliva, yet there is no sign of disease. In every instance, whether in hospital or in homes, there has been no record of failure to protect.

The future possibilities in this direction can not be overestimated, as we have in the serum the almost absolute preventive of epidemics of diphtheria.

Respectfully, yours,

J. J. KINYOUN,  
Passed Assistant Surgeon, M. H. S.

HOLLAND.

*Cholera in Holland.*

AMSTERDAM, October 29, 1894.

SIR: Two cases of Asiatic cholera occurred in this city Friday, October 26, 1894. With the exception of 1 case, fatal, October 18, 1894, and 1 case, October 20, 1894, these cases of the 26th instant are the first in Amsterdam in two weeks.

Under date of October 24, 1894, the medical inspector for the province of North Holland reports cases of Asiatic cholera as follows: Haarlemmermeer, 1; Weesp, 7.

I am, etc.,

EDWARD DOWNES,  
U. S. Consul.

To the Hon. ASSISTANT SECRETARY OF STATE.

NOVA SCOTIA.

*Relative to disinfection of immigrants' baggage at Halifax.*

HALIFAX, N. S., November 14, 1894.

SIR: I have the honor to acknowledge receipt of yours of the 9th instant, requesting information as to what action the authorities will take about disinfecting immigrants' baggage at this port this winter. In reply, I beg to say that to-day I called on Dr. Wickwire, the Dominion health officer at Halifax, and was informed that orders had been received by him to carefully disinfect the baggage of all immigrants coming to this port this winter from any reported infected district in Europe.

Every steamer arriving at Halifax from Europe, or from any port where there is any suspicion of contagious or infectious disease, will be visited by a consular officer from this office until further notice; and the disinfected baggage for the United States will be carefully labeled, and reports of each arrival, stating the number of emigrants so destined and their nationality, port and place where from, and other essential particulars, will be made to your office by the next mail, or telegraphed,

if necessary. Besides the regular fortnightly boat from Glasgow and Liverpool, touching here en route to Philadelphia, the first steamer of the season will be the *Labrador*, of the Dominion Line, for Portland, due the 18th instant, or thereabout, to be followed by the *Laurentian*, of the Allan Line, the next week, from Liverpool, also bound to Portland.

Very respectfully,

DARIUS H. INGRAHAM,  
U. S. Consul-General.

PUERTO RICO.

*Smallpox at San Juan.*

Under date of November 11, 1894, the U. S. consul at San Juan reports that during the three weeks ended November 7, 320 cases of smallpox, of which 15 were fatal, occurred in San Juan. He adds:

Smallpox is spreading through the island. It has appeared at Humacao, a port at the eastern end of the island; also at interior towns. Bayamo and Cataño, towns across the bay from here, have a large number of cases.

TURKEY.

*Cholera in Turkey.*

[Report 108.]

It is with great regret that I have to report that 2 deaths from cholera occurred in Constantinople among the recruits who arrived here last Saturday from Asia Minor. There were more than 700 men, who came from Taazla on a small steamship on which hardly more than 300 or 400 could be embarked with comfort. These 700 men had undergone five days' quarantine at the lazaretto of Taazla. \* \* \* It was on Saturday last, the 27th instant, that 1 of the 700 men who had just arrived presented all the symptoms of cholera. He died in thirty hours, and the diagnosis of cholera was proved by microscopical examination. The following day, the 28th, another man fell ill with similar symptoms. This second case also proved fatal, the man dying on the 30th instant.

It must not be forgotten that the international sanitary commission has several times expressed to the Turkish Government its opinions on the movement of troops. It can not be denied that cholera is often spread by the movements of troops, e. g., the cholera epidemics of Trebizonde, Sivas, Smyrna, and Adrianople. The above-mentioned sanitary commission has condemned the movements of troops, as it declines any responsibility. I must report that the sanitary steps decided on by the international sanitary commission are not put into execution, as the provincial authorities thwart the orders given by the sanitary administration, upon which the responsibility devolves.

\* \* \* The steamship on which the above-mentioned 700 recruits were embarked has been sent to Cavak, at the entrance to the Bosphorus, in order to undergo ten days' quarantine and be submitted to thorough disinfection. The recruits are to be sent to Aleim Dag, a mountain in the vicinity of Constantinople, where they are to undergo ten days' quarantine once more.

New recruits are arriving every day at Ismid, where they have to undergo quarantine. It has been officially stated that 2 deaths from



cholera have already occurred at Ismid. The first death occurred on the 28th instant and the other on the 30th instant. These deaths at Ismid are due to the movements of troops and to the agglomeration of over 5,000 recruits in that place.

The last news from the vilayet of Broussa states cholera has spread over a large territory. Many cases occur at Voshak (where Voshak carpets are woven), at Kenkeza, at Itifakler, at Suleimanlar, at Kermesti, and at Panderma. In the vilayet of Adrianople, at Tirnowa, and also at Moo, in the vilayet of Bitlis, cholera cases and deaths occur.

In Constantinople smallpox is always present, 61 deaths from it being reported during the month of September. The outbreak of dysentery is abating. An epidemic of mumps has broken out, and many children are suffering from this illness. Four cases of diphtheria have occurred, which have been treated with antidiphtheritic serum. Of these 4 cases 2 have proved fatal. It is stated that a rich banker, a Greek, has offered 300 Turkish pounds (\$1,500) as a nucleus for the installation of a Pasteur institute for the preparation of the antidiphtheritic serum. This offer has been rejected, and no steps have yet been taken to prepare this serum. It is obtained for use here from Paris or Germany.

SPIRIDION C. ZAVITZIANO.

CONSTANTINOPLE, *October 31, 1894.*

*Current measures against plagues.*

*Egypt.*—By order of the international sanitary council the regulations in regard to plague, recently enacted against arrivals from the Arabian coast between Lith and Loheyah, were suspended October 6.

*India.*—Quarantine against arrivals from Hongkong and Canton has been discontinued at the ports of Calcutta and Bombay.

*China.*—Advices from Shanghai of September 7 state that quarantine against Hongkong has been discontinued, the latter place being declared free from plague.

STATISTICAL REPORTS.

**AUSTRALIA**—*New South Wales—Newcastle.*—Month of September, 1894. Population, 15,329. Total deaths, 19, including 1 from diphtheria.

*Queensland—Brisbane.*—Three months ended June 30, 1894. Population, 93,657. Total deaths, 199, including enteric fever, 2; and diphtheria, 9.

**BAHAMAS**—*Dunmore Town.*—Two weeks ended October 26, 1894. Population, 1,472. One death.

**GREAT BRITAIN**—*England and Wales.*—The deaths registered in 33 great towns of England and Wales during the week ended November 3 corresponded to an annual rate of 17.3 a thousand of the aggregate population, which is estimated at 10,458,442. The lowest rate was recorded in Croydon, viz, 10.2, and the highest in Burnley, viz, 25.4 a thousand.

*London.*—One thousand three hundred and seventy-two deaths were registered during the week, including measles, 15; scarlet fever, 10; smallpox, 1; diphtheria, 54; whooping cough, 14; enteric fever, 17; and diarrhea and dysentery, 20. The deaths from all causes corresponded to an annual rate of 16.4 a thousand. In greater London 1,764 deaths



were registered, corresponding to an annual rate of 15.5 a thousand of the population. In the "outer ring" the deaths included 20 from diphtheria, 13 from measles, and 6 from whooping cough.

*Ireland.*—The average annual death rate represented by the deaths registered during the week ended November 3 in the 16 principal town districts of Ireland was 22.8 a thousand of the population. The lowest rate was recorded in Dundalk, viz, 12.6, and the highest in Sligo, viz, 50.8 a thousand. In Dublin and suburbs 160 deaths were registered, including smallpox, 1; enteric fever, 3; whooping cough, 1; and scarlet fever, 1.

*Scotland.*—The deaths registered in 8 principal towns during the week ended November 3 corresponded to an annual rate of 22.2 a thousand of the population, which is estimated at 1,482,767. The lowest mortality was recorded in Perth, viz, 10.3, and the highest in Greenock, viz, 30.0 a thousand. The aggregate number of deaths registered from all causes was 632, including measles, 9; scarlet fever, 7; diphtheria, 14; and whooping cough, 9.

*MEXICO—Merida.*—Month of October, 1894. Population, 45,200. Total deaths, 166. No deaths reported from contagious diseases.

*TURKEY—Constantinople.*—Month of September, 1894. Estimated population, 700,000. Total deaths, 861, including 61 from smallpox.

MORTALITY TABLE, FOREIGN CITIES.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—							
				Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.
Aix la Chapelle.....	Oct. 27....	109,397	33	.....	.....	.....	.....	.....	.....	.....	.....
Alexandria.....	Oct. 18....	231,396	160	.....	.....	.....	.....	2	.....	3	.....
Amapala.....	Oct. 13....	1,500	0	.....	.....	.....	.....	.....	.....	.....	.....
Amapala.....	Oct. 20....	1,500	0	.....	.....	.....	.....	.....	.....	.....	.....
Amapala.....	Oct. 27....	1,500	0	.....	.....	.....	.....	.....	.....	.....	.....
Amherstburg.....	Nov. 3....	2,300	0	.....	.....	.....	.....	.....	.....	.....	.....
Amherstburg.....	Nov. 10....	2,300	0	.....	.....	.....	.....	.....	.....	.....	.....
Amsterdam.....	Nov. 3....	448,839	138	.....	.....	.....	.....	1	1	.....	3
Antigua.....	Oct. 6....	16,664	12	.....	.....	.....	.....	.....	.....	.....	.....
Antigua.....	Oct. 13....	16,664	10	.....	.....	.....	.....	.....	.....	.....	.....
Antwerp.....	Oct. 27....	254,370	71	.....	.....	1	.....	.....	.....	.....	2
Barmen.....	Oct. 27....	124,000	26	.....	.....	.....	.....	.....	.....	.....	.....
Basle.....	Oct. 27....	80,000	19	.....	.....	.....	1	.....	.....	.....	.....
Belleville.....	Nov. 12....	10,201	1	.....	.....	.....	.....	.....	.....	.....	.....
Berlin.....	Oct. 20....	1,767,639	483	.....	.....	.....	.....	3	7	28	2
Bologna.....	Nov. 3....	146,068	55	.....	.....	.....	.....	.....	.....	.....	.....
Bombay.....	Oct. 16....	853,926	321	.....	.....	.....	.....	.....	.....	.....	.....
Bremen.....	Oct. 27....	127,500	32	.....	.....	.....	.....	.....	.....	.....	.....
Brussels.....	Oct. 27....	482,158	65	.....	.....	.....	.....	3	.....	.....	1
Budapest.....	Oct. 28....	600,000	15	.....	.....	5	.....	.....	.....	6	2
Cairo.....	Oct. 28....	374,838	287	.....	.....	1	.....	5	.....	.....	2
Cardenas.....	Oct. 27....	23,517	12	.....	.....	.....	.....	.....	.....	.....	.....
Cardenas.....	Nov. 3....	23,517	10	.....	.....	.....	.....	.....	.....	.....	.....
Catania.....	Oct. 28....	113,000	51	.....	.....	.....	.....	3	.....	2	.....
Chatham.....	Nov. 3....	9,052	3	.....	.....	.....	.....	.....	.....	.....	.....
Chatham.....	Nov. 10....	9,052	1	.....	.....	.....	.....	.....	.....	.....	.....
Cienfuegos.....	Nov. 10....	23,000	21	.....	.....	.....	.....	.....	.....	.....	.....
Coaticook.....	Nov. 3....	2,500	1	.....	.....	.....	.....	.....	.....	.....	.....
Coaticook.....	Nov. 10....	2,500	1	.....	.....	.....	.....	.....	.....	.....	.....
Cognac.....	Nov. 5....	17,500	4	.....	.....	.....	.....	.....	.....	.....	.....
Colombo.....	Sept. 29....	130,000	86	.....	.....	.....	.....	8	.....	.....	1
Colombo.....	Oct. 6....	130,000	75	.....	.....	.....	.....	3	.....	.....	1

## MORTALITY TABLE, FOREIGN CITIES—Continued.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—								
				Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Copenhagen.....	Oct. 20.....	341,000	86						2	6	2	
Curacao.....	Nov. 3.....	27,493	4									
Demerara.....	Sept. 1.....	53,176	79									
Demerara.....	Sept. 8.....	53,176	38									
Demerara.....	Sept. 15.....	53,176	60									
Demerara.....	Sept. 22.....	53,176	63									
Demerara.....	Sept. 29.....	53,176	46									
Denia.....	Oct. 27.....	14,000	2					1				
Dundee.....	Nov. 3.....	158,719	71						1	1	1	2
Dusseldorf.....	Oct. 27.....	169,046	49							2		
Fayal.....	Oct. 27.....	6,264	2					2				
Flushing.....	Nov. 3.....	15,250	2									
Frankfort on the Main.....	Nov. 3.....	203,000	56								2	5
Funchal.....	Oct. 27.....	35,665	24					3			4	
Genoa.....	Nov. 3.....	182,388	98					1		2		
Ghent.....	Oct. 27.....	153,803	60									
Ghent.....	Nov. 3.....	153,803	48									
Girgenti.....	Oct. 27.....	23,847	6									
Girgenti.....	Nov. 3.....	23,847	6									
Glasgow.....	Oct. 27.....	686,820	245					5	8	2		
Gothenburg.....	Oct. 20.....	108,000	35						1	3		
Gothenburg.....	Oct. 27.....	108,000	40						2	2		
Guelph.....	Nov. 10.....	10,689	2									
Halifax.....	Nov. 10.....	38,700	13									
Hanover.....	Oct. 13.....	199,956	55					1		3		
Hio-go.....	Oct. 13.....	153,055	89					3				
Kanagawa.....	Oct. 9.....	126,685								1		
Kanagawa.....	Oct. 16.....	126,685						1		1		
Kehl, Strasburg.....	Oct. 27.....	123,556	52					3		1		3
Kingston, Canada.....	Nov. 16.....	17,808	19									
Königsberg.....	Nov. 3.....	169,200		2						6	1	
Leeds.....	Nov. 3.....	388,761	151						1	1	2	1
Leghorn.....	Nov. 3.....	102,956	37									
Leith.....	Oct. 27.....	72,003	18						1			
Lyons.....	Oct. 27.....	500,000	126						4	2	1	
Madras.....	Oct. 12.....	452,518	355								3	2
Madrid.....	Oct. 21.....	482,816	302			13		11		3		
Magdeburg.....	Oct. 13.....	221,534	66							5		
Magdeburg.....	Oct. 20.....	221,534	65						2	12		1
Manila.....	Sept. 29.....	400,000	121									
Maracaibo.....	Oct. 20.....	38,000	25									
Maracaibo.....	Oct. 27.....	38,000	24									
Maracaibo.....	Nov. 3.....	38,000	23									
Marsala.....	Oct. 20.....	40,131	18					1				
Marsala.....	Oct. 27.....	40,131	17					1				
Matamoras.....	Nov. 9.....	8,000	8									
Matanzas.....	Nov. 7.....	40,000	24		2							
Melbourne.....	Sept. 29.....	1,140,405						1		3		
Melbourne.....	Oct. 6.....	1,140,405						1		1		
Melbourne.....	Oct. 13.....	1,140,405								1		
Merida.....	Sept. 22.....	45,200	41									
Merida.....	Sept. 30.....	45,200	47									
Merida.....	Oct. 7.....	45,200	30									
Messina.....	Nov. 3.....	90,000	27					2	3			
Montevideo.....	Oct. 13.....	215,061	89							1		
Munich.....	Oct. 27.....	390,000	151						1	6		3
Naples.....	Nov. 3.....	540,000	177									
Nuremberg.....	Oct. 20.....	159,773	52					2				3
Palermo.....	Oct. 27.....	273,000	122				1		1	1		
Palermo.....	Nov. 3.....	273,000	84							9	1	
Paris.....	Oct. 20.....	2,424,705	833			1		8		5	5	4
Paris.....	Oct. 27.....	2,424,705	836					4	1	6	2	3
Paso del Norte.....	Nov. 3.....	7,500	4									
Paso del Norte.....	Nov. 10.....	7,500	4							1		
Prague.....	Oct. 27.....	182,530	95					1	1	3	1	
Puerto Cortez.....	Oct. 29.....	1,500	0									
Puerto Cortez.....	Nov. 7.....	1,500	0									
Queenstown.....	Oct. 27.....	15,000	3									
Queenstown.....	Nov. 3.....	15,000	4									
Rheims.....	Nov. 3.....	105,408	31					2				
Rio de Janeiro.....	Oct. 6.....	600,000	205		1			1		1		1
Rome.....	Sept. 29.....	456,777	116					4		1		
Rome.....	Oct. 6.....	456,777	135					2				
Rotterdam.....	Nov. 3.....	228,597	90			4						

## MORTALITY TABLE, FOREIGN CITIES—Continued.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—								
				Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
St. Petersburg*	Oct. 20.....	1,000,000	.....	3				3	14	20	6	8
San Juan del Norte.....	Oct. 21.....	400	0									
San Juan del Norte.....	Oct. 28.....	400	0									
San Juan Puerto Rico.....	Oct. 24.....	28,000	7			5						
San Juan Puerto Rico.....	Oct. 31.....	28,000	8			8						
San Juan Puerto Rico.....	Nov. 7.....	28,000	6		1	2						
San Pedro.....	Oct. 27.....	3,300	3									
Santiago de Cuba.....	Nov. 3.....	40,000	16					1		3		
Santiago de Cuba.....	Nov. 10.....	40,000	18		4					1		
Schiedam.....	Nov. 3.....	25,580	10									
Sheffield.....	Nov. 3.....	340,462	116						3		15	1
Southampton.....	Oct. 20.....	67,283	19									
Southampton.....	Oct. 27.....	67,283	30					1				
Stettin.....	Oct. 26.....	125,000	70					1	3	2	3	
Stockholm.....	Oct. 27.....	252,937	85						3	3	4	
Stuttgart.....	Nov. 1.....	139,659	37							2		
Tegucigalpa.....	Oct. 20.....	12,000	7									
Tegucigalpa.....	Oct. 27.....	12,000	3									
Trapani.....	Oct. 27.....	43,095	10							1	2	
Trapani.....	Nov. 3.....	43,095	9					1	1		1	
Truxillo.....	Oct. 6.....	5,000	0									
Truxillo.....	Oct. 13.....	5,000	0									
Tuxpan.....	Nov. 3.....	10,280	8									
Vera Cruz.....	Nov. 8.....	25,500	24		2							
Vienna.....	Oct. 6.....	1,465,537	502					1	8	22	2	1
Vienna.....	Oct. 13.....	1,465,537	530						13	25	7	1
Vienna.....	Oct. 20.....	1,465,537	561					2	11	19	7	2
Warsaw.....	Oct. 20.....	515,654	224			5			20	22	2	2
Winnipeg.....	Nov. 14.....	35,500	5									
Zurich.....	Oct. 27.....	122,000	30							2		

\* Plague, 1.

By authority of the Secretary of the Treasury :

WALTER WYMAN,  
*Supervising Surgeon-General Marine-Hospital Service.*